OPEN MEETING

MEMORANDUM

TO: THE COMMISSION

FROM: Utilities Division

DATE: February 29, 2008

RE: IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN, DISTRIBUTED ENERGY ADMINISTRATION PLAN, CUSTOMER SELF-DIRECT RENEWABLE RESOURCE TARIFF, AND RESET OF RENEWABLE ENERGY ADJUSTOR (DOCKET NO. E-01345A-07-0468)

Background

On August 7, 2007, Arizona Public Service Company ("APS") filed its 2008 Renewable Energy Standard Implementation Plan ("The Implementation Plan"), its Distributed Energy Administration Plan ("DEAP"), its Customer Self-Directed Renewable Resource Tariff, and its Reset of the APS Renewable Energy Adjustor. This filing is in response to requirements in the certified Renewable Energy Standard and Tariff Rules ("REST Rules"). On August 30, 2007, APS filed an Amended Renewable Energy Standard Implementation Plan and an Amended Renewable Energy Standard Rate Schedule. On December 17, 2007, APS and the Solar Advocates jointly proposed an alternative Implementation Plan and funding mechanism. On December 21, 2007, APS filed modified exhibits that reflected the changes that would be required if the alternative Implementation Plan and funding mechanism were to be approved by the Commission.

The APS REST Implementation Plan 2008 to 2012

The APS REST Implementation Plan 2008 to 2012 is a five-year plan describing how APS intends to comply with the REST Rules requirements. In a separate document, Attachment B of the APS application, APS has filed its Distributed Energy Administration Plan ("DEAP"). The DEAP describes how APS intends to meet the annual Distributed Renewable Energy Requirement.

APS estimates that the cost for full compliance with the REST Rules will total $48.2 million in 2008 and will increase to $95.7 million by 2012, totaling $347 million in the five-year period.

The Plan describes the technologies considered and the expected schedule of resource usage on a yearly basis for five years. The anticipated kilowatts ("kW") and kilowatt hours ("kWh") that will be applied to meet REST requirements are calculated.

In Exhibit 1 of Attachment A, the APS REST Program Summary of the APS application, APS outlines how it intends to meet its REST requirements. In 2008, APS expects to have retail electricity sales of 29,496,411 MegaWatt-hours ("MWH"). When the annual 2008 REST requirement of 1.75 percent of retail sales is applied, the result is a renewable MWH requirement of 516,187 MWH. Of this amount, 90 percent (464,568 MWH) will come from renewable generation and 10 percent (51,619 MWH) will come from distributed energy resources. APS projects that the renewable generation requirement will cost $5.9 million to achieve and the distributed energy requirement will cost $42.3 million to achieve. The total program budget for the APS REST program in 2008 is projected to be $48.2 million.

In Exhibit 1 of the APS filing, APS indicates that it anticipates 102,000 MWh of Green Power sales to customers in 2008, with gradual increases in those sales over the following five years. However, APS states in a footnote that "Green Power sold to customers will not be counted toward REST compliance and the cost of those resources is not included in the Renewable Generation budget."

Renewable Generation

Currently, APS owns and operates approximately 6 MW of solar capacity. In addition, APS has entered into power purchase agreements ("PPAs") totaling 114 MW of renewable generation capacity. This totals 120 MW of generation capacity and is described in detail in Exhibit 3B of Attachment A in the APS application.

The expected annual MWH of generation from existing contracts and planned generation is shown in Exhibit 3A of Attachment A of the APS plan. The estimate for existing renewable generation is 454,162 MWH in 2008, which will cover 97.7 percent of the renewable generation target (464,568 MWH) that APS has set for 2008. So, an additional 10,407 MWH of renewable generation would be needed to be procured in 2008 to meet the renewable generation REST requirement.

Distributed Energy

In its Plan, APS has proposed an annual funding level that APS believes is necessary for compliance with the annual Distributed Renewable Energy Requirement of the REST Rules. The APS request is for a reset of its current EPS adjustor to cover only the 2008 estimate for the Distributed Renewable Energy Requirement. APS indicated that additional increases in the adjustor will be required to meet the future increases in the Distributed Renewable Energy Requirement.

APS participated in the meetings of the Uniform Credit Purchase Program ("UCPP") Working Group in 2006 and 2007. APS has included the UCPP procedures and incentives in its DEAP.

APS has developed a planning tool to estimate the Distributed Energy ("DE") program outcomes. The assumptions used with this planning tool are included in Exhibit 4A of

Attachment A of the APS filing. The Distributed Energy Projected Program Outcomes are shown in Exhibit 4B of Attachment A of the APS filing. The Distributed Energy Projected Program Outcomes by technology are in Exhibit 4C of Attachment A of the APS filing.

Incentives to encourage customers to install Distributed Energy Systems are generally of two types: Up-Front Incentives ("UFI") and Production-Based Incentives ("PBI"). The incentives are used differently depending upon the type of customer.

Incentives for residential customers are for a one-time payment based on the DE system's capacity and first-year estimated savings. For residential customers, this is a UFI.

For non-residential systems, projects with an incentive value of $75,000 or less will receive a one-time UFI incentive. Non-residential systems eligible for incentives greater than $75,000 will be offered a PBI incentive based on system energy output.

Projects that fall outside of the standard administrative, equipment, or incentive requirements for DEAP projects will be considered "Market Driven Projects." Customer Self-Directed Projects are for those customers who pay REST Tariff funds of at least $25,000 annually. The "APS Adjustment Schedule SDR, Self-Directed Renewable Resources" was submitted as part of this filing.

<u>Renewable Technology Commercialization and Integration</u>

APS requests a budget allocation to conduct various studies related to the commercialization and integration of renewable resources. The studies may be conducted solely by APS or in partnership with other organizations.

The following studies are currently funded by the EPS funding:

- <u>Arizona Renewable Resource Study</u> – Recently completed by Black and Veatech.
- <u>APS Integration Study</u> – Recently completed by APS.
- <u>Joint Utility Market Study</u> – Done together with SRP, TEP, and the Arizona Cooperative Utilities.
- <u>Concentrating Solar Power Project Studies</u> – Done in conjunction with the Joint Development Group.

To determine whether or not to fund new studies, APS will consider three areas:

- Renewable technologies and available resources
- Transmission and system integration impacts
- Distribution system impacts

Costs of Program Implementation

APS has estimated, in Exhibit 2 of its application, that the cost to comply with the REST Rules will range between $48 million in 2008 and $96 million in 2012, totaling $347 million over five years.

APS is requesting adjustor funding of $42 million for 2008. This amount, added to the $6 million already included in base rates, would total $48 million, which is the amount that APS believes it needs to meet the REST requirements.

The APS Distributed Energy Administration Plan

The REST Rules require that a portion of the annual renewable energy requirements must come from DE systems. In its plan, APS proposes to use the approach and technology requirements that were developed by UCPP Working Group in 2006 and 2007. APS has indicated that, if the Commission adopts UCPP requirements that are different than those implemented in the DEAP plan, the APS plan may need to be amended.

The DEAP Plan, as submitted by APS in this filing, is intended by APS to meet the requirements of the REST Rules in A.A.C. R14-2-1810.B, which requires that "...each Affected Utility shall file a Uniform Credit Purchase Program for Commission review and approval."

The DEAP plan, as proposed, provides the details by which customers will obtain incentives; the requirements associated with the selection, installation, and operation of the DE systems; and the measurement of DE performance for compliance reporting and program evaluation. The intent is to ensure consistency and uniformity in the administration of the APS DE program. APS has indicated that this new program will require updating and revising the existing APS DE incentive program, known as the Solar Partners Incentive Program.

There are three project categories in the DEAP program: Standardized Projects, Market-Based projects and Customer Self-Directed projects.

The DEAP program includes installation and equipment specifications that were developed by the UCPP Working Group. Included are equipment qualifications and installation guidance.

DE systems must be permitted with and inspected by the local authority that has jurisdiction. APS will select a subset of DE systems for an APS DE program conformance inspection.

The DEAP plan provides a review of the reservation process for incentives, an extension and cancellation policy, and details of energy reporting program monitoring.

APS includes a request for a DE Review Panel for ongoing review and adjustments of certain Plan elements. APS asks that the DE Review Panel be given "authority to expeditiously adjust the Plan and program elements."

The DE Review Panel would be a five-member panel. The Panel will review program elements, vote on suggested changes, and suggest to APS modifications to Plan elements. Any changes would be promptly reported to the Commission. The Panel would include one representative from the ACC Staff, three representatives from the distributed energy industry, and one representative from APS. The industry and ACC Staff representative would be appointed by the ACC Utilities Division Director. Representatives would serve two-year terms. A unanimous vote on a subject would result in incorporation of the suggested change into the DEAP Plan. Modifications not receiving a unanimous vote could be considered in the following year's REST Implementation Plan.

As part of its REST Plan, APS includes in its budget over $15 million for Administration, Implementation, Marketing and Commercialization. This would include 48.3 full-time APS employees. The majority of that budget ($13.6 million) and the majority of the employees (40.8) would be used in the Distributed Program. Details of the budget are included in Appendices 1 and 3 of this Staff Report.

Reset of APS Renewable Energy Adjustor

In its August 30, 2007 amended filing, APS filed a request to reset a previously-authorized renewable energy adjustor mechanism. APS estimates that it will need the Adjustor to collect $42.2 million which, together with another $6 million in base rates, would be needed, in APS' opinion, to meet the REST requirements. This would result in an Adjustor rate of $0.004629/kWh, with monthly caps of $1.85 for residential customers, $68.78 for commercial and industrial customers less than 3 MW, and $206.33 for commercial and industrial customers greater than 3 MW.

Adjustment Schedule SDR: Self-Directed Tariff

In its filing, APS included Adjustment Schedule SDR: Self-Directed Renewable Resources. This tariff explains the eligibility and procedures necessary for a customer to receive funding for self-directed projects, as allowed in A.A.C. R14-2-1809. The customer must notify APS by March 31 of the "payment year" of its intent to apply for self-directed funding. In the following year, the "funding year", APS would make available up to one-half of the system cost, limited by the customer's RES related payments in the payment year.

Other Issues

APS, in its filing, requests clarification that the REST Rules are the standard that applies to renewable energy issues for APS and that rulings that pertain to the former Environmental Portfolio Standard ("EPS") Rules are no longer applicable and binding on APS.

In particular, APS requests clarification that the REST Rules have superseded the EPS Rules and that the partial variance of the EPS Rule granted by the Commission in Decision No. 66565 has been superseded. In that Decision, APS was granted a partial waiver to allow a limited amount of renewable solar thermal energy that replaced natural gas usage to be eligible to meet the EPS requirement.

APS also requests clarification that the renewable reporting requirements in the REST Rules have replaced similar reporting requirements in other related dockets to include:

Decision No. 58643 (June 1, 1994) Docket No. E-00000D-93-0052 Integrated Resource Planning	Database of renewable resources; three-year renewable resource action plans as part of IRP
Decision No. 59601 (April 24, 1996) Docket No. E-01345A-95-0491 APS Rate Reduction Agreement	Semi-annual Reports to Staff on DSM and Renewables
Decision No. 63354 (February 8, 2001) Docket No. E-01345A-01-0034 APS Application for Approval of Environmental Portfolio Surcharge EPS-1	APS must file annual report within 60 days of the end of the calendar year with details of surcharge funds collected and spent.
Decision No. 66565 (November 18, 2003) Docket No. E-01345A-03-0660 Variance to allow solar thermal to replace natural gas for the EPS	APS must file a report on all solar thermal installations made subject to the variance as part of EPS reporting requirements.

Comments by Stakeholders and Interested Parties

On August 13, 2007, comments were filed in the docket by Sunrise Energy Alternatives, LLC of Dewey, Arizona. The comments concern remote power systems for off-grid renewable systems and the APS requirements for metering of the systems. The commenter was requesting more information from APS on the types of meter(s) required.

On August 30, 2007, Jaspar Energy, LLC filed comments related to Solar Energy Enhanced Combustion Turbine ("SEECOT™") systems that may be installed in conjunction with combined cycle power plants. Jaspar Energy commented that, in the most recent APS RFP, APS excluded the use of APS' own assets. Jaspar Energy recommended that, in its final order related to the APS REST Implementation Plan, the Commission permit APS to include such solar energy systems at its own fossil fuel fired power plants, which would reduce the "air intake" temperatures of the gas turbines, thereby adding generating capacity, while reducing fuel consumption, as well as replacing the need to use inefficient gas "duct burners," thereby reducing the high cost of peaking power.

On September 18, 2007, Western Resource Advocates and Interwest Energy Alliance provided initial comments about the APS REST Implementation Plan. The comments addressed only the resources used to meet the non-distributed portion of APS' RES requirements over the period 2008 to 2012. Included was an analysis of the benefits of the non-distributed renewable energy resources and the market conditions related to the APS resources. The comments recognized that "many non-distributed renewable resources are cost competitive with conventional generation." The comments also recommended that the Commission "Accept APS' plan for acquiring non-distributed resources."

On September 26, 2007, joint comments were filed by the "Solar Advocates," which include The Annan Group, the Arizona Solar Energy Industries Association, the Greater Tucson Coalition for Solar Energy, the Solar Alliance, and the Vote Solar Initiative. The primary concern expressed in the comments was that "the goals of the RES can be achieved for less cost than proposed by APS in their filing." The comments agreed that the "incentives budget proposed by APS appears reasonable and appropriate." The group believes that savings can be made in the overhead portion of the budget. They recommend that the 2008 overhead budget be limited to 10 percent of total costs. One alternative suggested was to collect the funds in base rates. The comments noted that "Marketing is the largest part of the non-incentive budget in APS' Plan, representing 15 percent of the total proposed DE budget in 2008". They questioned whether the cost of the studies proposed by APS should be funded exclusively by the RES program. The comments included examples of other states, including Colorado and California, where renewable programs are operated with overhead costs less than 10 percent, and in the case of Colorado, ranging from 3.8 percent to 6.1 percent in the years 2008-2016. In particular, the Solar Advocates claim that the 32 percent overhead costs proposed by APS for distributed energy are excessive.

On October 16, 2007, Commissioner Mundell filed a letter in the docket requesting that APS and the Solar Advocates work together to find a common solution.

On December 17, 2007, APS and the Solar Advocates filed a joint letter (the "Joint Proposal") in the docket. The letter included revised budget and funding mechanisms that "permits APS to better synchronize program funding with expected residential distributed energy ("DE") customer participation." The proposal includes a roll-over of uncommitted DE incentive funds from 2007 and a reduction in the Marketing and Outreach budget. The alternative proposal provides for full funding for the non-residential DE and Renewable Generation elements that are included in the APS Implementation Plan. The new element of the proposal is designed to better synchronize with residential DE customer demand. This would adjust the budget and establish a two-step funding mechanism, beginning at the level of the sample tariff and increasing when certain triggers are met.

In the new Joint Proposal, the Commercialization and Integration ("C&I") budget remains as proposed by APS. Funding for Marketing and Outreach would be reduced by $1.5 million to $4.8 million in 2008.

Both parties agreed that missing the first year (2007) in the ramp-up of the RES requirements will put a strain on both the utility and industry in meeting the 2008 requirements. This will require an increase from around 500 installations per year to more than 7,000 annual installations to meet the RES requirements.

The Joint Proposal requests authorization from the Commission for funding of $43.7 million in two steps. Step 1 would set funding consistent with the RES Sample Tariff at an annualized level of $36.9 million. Step 2 would be an automatic increase to an annualized level of $43.7 million, contingent upon certain triggers being met. The triggers would be one of two events based on the pace of residential incentive requests:

1. APS receives new 2008 residential incentive requests of more than $13 million before June 30, 2008 (or the mid-point of the remaining calendar year if ACC approval is received after January 1, 2008) or,

2. APS receives new 2008 residential incentive requests of more than $17.5 million before August 31, 2008 (or the two-third point of the remaining calendar year if ACC approval is received after January 1, 2008).

If either of the triggers are met, the parties ask that the Commission authorize APS to automatically increase the charges and caps contained in the RES Adjustment Schedule with prior notice to the ACC, Staff, and interested stakeholders. The notice would be in the form of an informational filing 30 days prior to the increase that would include documentation of the residential incentive request level, the date of the increase, and the anticipated amount of collections for the remainder of the year.

On December 21, 2007, APS filed a letter and documents to support the Joint Proposal's alternative Implementation Plan, which was described in the joint December 17th letter. Also in the filing were exhibits that were modified by the alternative Implementation Plan, to include:

1) Exhibit 2: 2008 APS RES Summary as Proposed,

2) Exhibit 4B: 2008 APS Distributed Energy Projected Program outcomes,

3) Exhibit 4C: 2008 APS Distributed Energy Projected Program Outcomes by Technology,

4) Amended (Step 1) Adjustment Schedule RES,

5) Amended (Step 2) Adjustment Schedule RES, and

6) Attachment C: APS/Solar Advocates Alternative Funding Collection Estimates.

Under the Joint Proposal's alternative Implementation Plan, the budget would change to:

Exhibit 2: 2008 APS RES Budget Summary as Proposed ($MM)

	Amended APS Plan Filed August 30, 2007	APS/Solar Advocates Alternative Plan		
		Revised Total	Step 1 Proposed Funding	Step 2 Additional Funding[1]
Renewable Generation:				
Energy Purchase	$ 5.3	$ 5.3	$ 5.3	$ --
Administration	0.7	0.7	0.7	--
Implementation	0.4	0.4	0.4	--
Commercialization & Integration	0.5	0.5	0.5	--
Renewable Generation - Subtotal	**6.9**	**6.9**	**6.9**	--
Estimated Green Power Revenue	(1.0)	(1.0)	(1.0)	--
Renewable Generation – RES	**$ 5.9**	**$ 5.9**	**$ 5.9**	**$ --**
Distributed Energy:				
Incentives	$ 28.7	$ 28.7	$ 22.7	$ 6.0
Customer Self-Directed	--	--	--	--
Administration	1.6	1.6	1.4	0.2
Implementation	5.2	5.2	4.6	0.6
Marketing & Outreach	6.3	4.8	4.8	--
Commercialization & Integration	0.5	0.5	0.5	--
Distributed Energy – Subtotal	**$ 42.3**	**$ 40.8**	**$ 34.0**	**$ 6.8**
NET TOTAL	**$ 48.2**	**$ 46.7**	**$ 39.9**	**$ 6.8**
2007 Estimated Incentive Roll-over[2]		(3.0)	(3.0)	
TOTAL	**$ 48.2**	**$43.7**	**$ 36.9**	**$ 6.8**

In December 2007, APS estimated that the 2007 Estimated Incentive Roll-Over would be approximately $3 million. The actual roll-over at the end of 2007 was $3.5 million.

On February 22, 2008, SOLID Energy, Inc. ("SOLID") filed comments on the APS REST Plan. SOLID supports APS' request for clarification that the Partial Variance approved for APS in Decision No. 66565 is superseded by the REST Rules. SOLID expressed concern that APS might wish to own and install systems under the DE portion of the RES. SOLID opposes the voting mechanism in the proposed DE Review Panel. SOLID disagrees with the Credit Purchase Agreement, Contractor Qualification, Participant Delinquency, Allocation Method, Incentive Cap for Dealers and Manufacturers, Default Procedures, and Market-Based Projects sections of the Plan. SOLID requests a second phase of UCPP Working Group meetings.

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[1] Represents the annualized collection resulting from affecting Step 2 funding. Actual collection resulting from Step 2 will vary based on the month the increase is put in place.

[2] The Estimated Incentive Roll-over represents the anticipated unspent incentive dollars from 2007.

Staff Response to Comments by Stakeholders and Interested Parties

Staff agrees with Sunrise Energy Alternatives, LLC that APS should clarify the details of metering for renewable systems, particularly for remote, stand-alone systems.

Staff agrees with Jaspar Energy, LLC that APS should be allowed to install "solar assist" systems in conjunction with combined cycle power plants owned by APS. In particular, solar systems that reduce the need to run inefficient gas "duct burners" should be encouraged as a way to reduce the high cost of peaking power.

Staff agrees with Western Resource Advocates and Interwest Energy Alliance that the APS plan for acquiring non-distributed resources should be approved by the Commission.

Staff agrees with the Solar Advocates that APS' proposed overhead costs, as a percentage of total program costs, are extremely high, particularly for the Distributed Energy effort.

Staff agrees with SOLID on the clarification that the Partial Waiver in Decision No. 66565 is superseded by the REST Rules. Staff also agrees with SOLID that the DE Review Panel idea has some flaws. Staff disagrees with SOLID that its recommended changes to the APS REST Implementation Plan need to be made in 2008. Staff recommends that APS review SOLID's comments and consider appropriate changes for the filing of the APS 2009 REST Implementation Plan.

Staff Response to the Joint Proposal from APS and the Solar Advocates

Staff has reviewed the Joint Proposal provided by APS and the Solar Advocates. Staff notes that APS was unable to find enough customers to utilize $3.5 million in 2007 EPS incentive funding. This fact clearly indicates that APS will find it nearly impossible to expend the $22 - $28.7 million in incentives for the REST Distributed Resources that are proposed in the Joint Proposal.

The Joint Proposal is based upon the premise that the Commission would approve a two-step process that would automatically reset the APS Renewable Energy Adjustor in Step 2.

Staff is concerned that such an automatic reset may raise legal issues. Staff is further concerned that such a step may not be a sound policy for the Commission to institute.

Finally, Staff notes that the Commission will take action on the APS 2008 REST Plan at a point where the first quarter of the plan year is already completed. The next REST plan for APS must be filed by July 1, 2008. This 2009 REST Plan filing will offer an opportunity for APS to request and receive modifications to the APS Renewable Energy Adjustor in the Fall of 2008 as the Commission considers approval of the 2009 REST Plan.

For these reasons, Staff recommends that the Commission reject the Joint Proposal of APS and the Solar Advocates.

Staff Analysis of the APS Implementation Plan

Staff has analyzed the APS REST Implementation Plan, including its Distributed Energy Implementation Plan, and its proposed tariffs.

The REST Implementation Plan

Staff finds that the Implementation Plan is a logical, well thought-out approach for APS to meet its REST obligations. Although Staff may not agree with all the assumptions used by APS in preparing its plan, Staff believes that the approach proposed by APS is consistent with the steps that Staff believes are necessary to expand the use of renewables by APS and its customers.

Staff disagrees with APS that Green Power Sales under Rate Schedules GPS-1 and GPS-2 should not be counted toward the REST requirements. The Environmental Portfolio Standard encouraged such green pricing efforts by offering extra credits for such programs. Staff recommends that the Commission direct APS to count Green Power Sales toward REST requirements.

The Distributed Energy Administration Plan

Staff agrees with most of the details of the DEAP plan. Staff believes that the procedures, policies, program requirements, installation and equipment specification, and incentive types and incentive levels are reasonable and should contribute to a fair and orderly process to encourage distributed energy systems at customer premises.

Staff disagrees, however, with one provision in Section 4.2 of the DEAP plan. It states: "A DE system purchased more than 180 days before the date that APS receives the reservation request will not be considered 'new' under this Plan." Staff believes that this requirement is logical, primarily for the years 2009 and after. However, Staff notes that, in January 2004, the Commission began its process to expand the Environmental Portfolio Standard in size and scope, and to include a wide variety of new renewable technologies that were never before eligible for the Portfolio. Many customers relied on the promise of future incentives when they purchased and installed renewable energy systems. Staff believes that, for calendar year 2008 only, APS should allow an exception to its procedure as follows:

> For any eligible DE system purchased and installed between January 1, 2004, and July 1, 2008, and for which a reservation request is submitted to APS no later than December 31, 2008, such system shall be considered "new" under the APS DEAP program. Should DE funding run short in 2008, any of these "grandfathered" systems shall be paid incentives in 2009, once 2009 funding levels have been approved by the Commission. Upon payment by APS of the appropriate incentive, APS shall accrue all Renewable Energy Credits created since the system was installed. These Renewable Energy Credits may be used by APS for the 2008 REST requirements or for any later year's requirements. APS may

choose whether to pay for the Renewable Energy Credits from these "grandfathered" systems with a one-time up-front incentive or as a yearly production-based incentive.

Staff has reviewed the APS proposal to establish a "DE Review Panel," which, if approved as proposed, would have broad authority "to expeditiously adjust the Plan and program elements." Staff notes that this concept is similar to one that was discussed in the Uniform Credit Purchase Program meetings.

Staff believes that, once all outstanding 2008 REST Plans and Tariffs are addressed by the Commission, work on the Uniform Credit Purchase Program will recommence. Staff believes that the issue of review panels such as those proposed by the UCPP Working Group and by APS are more appropriately addressed in the UCPP process. Therefore, at this time, Staff recommends that APS' request to establish a DE Review Panel be denied. In the future, if no such panel is established under the UCPP effort, APS may elect to recommend such a panel in future REST Implementation Plans.

Fair Value Determination of REST Tariff

Staff has analyzed APS' application in terms of whether there are fair value implications. In Decision No. 69663, issued on June 28, 2007, the Commission determined the Fair Value of APS' rate base to be $6,057,554,000. The proposed REST Tariff would have no impact on the Company's revenue, fair value rate base or rate of return. Additionally, because plant developed pursuant to the REST programs is not added to rate base, there will be no corresponding effect on APS' ultimate revenue or rate of return. APS has assigned specific numerical codes in its accounting system for the plant, revenue and expenses associated with REST implementation to ensure that these items are properly accounted for and in order to accurately prepare the required annual report for this program.

Staff's Development of Two Options for Commission Consideration

Staff notes that, by the time the Commission is able to take action on the APS REST Plan, three months of 2008 will have elapsed. According to the REST Rules, APS would only be responsible to meet the portion of the annual REST Requirement from the date of funding approval. Therefore, Staff calculates that, at most, the Commission should only consider approving a funding level for 2008 that is 75 percent of the total requested by APS in its filing, since one quarter will have already passed prior to approval.

Staff's review of the APS request shows that an extremely large percentage (over 31 percent) of the total funds requested will be used by APS for Administration, Implementation, Marketing, Outreach, Commercialization and Integration. Staff agrees with some of the stakeholders who have argued that this percentage is extremely high. Staff recommends that funding for Administration, Implementation, Marketing, Outreach, Commercialization and Integration be reduced under either option proposed by Staff.

Staff has proposed two possible options for the Commission to consider. The first option, Option A, would pro-rate the funding and REST requirements for 2008, based on the Commission's approval date of the APS REST Implementation Plan Filing and reset of the APS Renewable Energy Adjustor, as required in A.A.C. R14-2-1804.B. Option A would address the fact that the 2008 budget and plan will be approved after the year has commenced.

Option B offers the Commission a completely different approach, relaxing the allocation of the Distributed Renewable Energy Requirement in 2008, but creating a six-year ramp-up to the desired residential/non-residential 50 percent split in 2013.

<u>Staff Proposed Option A:</u>

From its review of the APS proposed budget, Staff finds that the Administration, Implementation, Marketing, Outreach, Commercialization and Integration budget allocations are extremely high compared to actual funds used to encourage distributed projects or to purchase renewable kWh from third parties. Although Staff understands that start-up funding in the first year of a program may be, of necessity, much higher than normal, Staff believes that the totals requested for Administration, Implementation, Marketing, Outreach, Commercialization and Integration are excessive.

For the 2008 Implementation Plan, Staff recommends a reduction of $4.2 million of those non-project costs. That would reduce the APS budget from $48.2 million to $44 million. Next, since one quarter of year 2008 is already completed and the APS Annual Renewable Energy Requirement will be only 75 percent of the Annual Requirement used to establish the APS REST Implementation Plan, Staff recommends that only 75 percent of the remaining $44 million be authorized for the APS Implementation Plan. That would be a total of $33 million.

Staff proposes, in Option A, that APS use the following sources of funds for the 2008 budget of $33 million:

EPS Funds rolled over from 2007	$ 3,500,000
Renewable Funding in Base Rates	6,000,000
Estimated Green Power Revenue	1,000,000
Reset of Adjustor to Collect $30 million annually (or $22.5 million in 9 months April – December 2008)	22,500,000
	$33,000,000

APS has not formally proposed a $30 million reset for the Adjustor. Staff inquired of APS in various data requests how it would fund a REST program at various levels of funding to include: $27 million, $30 million, $33 million, $36 million and $42.2 million (the original APS request). The responses by APS are included as Appendices 2 and 4 of this Staff Report.

In order to collect the REST funding at the $30 million per year rate, the APS Adjustor rate would need to be $0.003288 per kWh, with monthly caps of $1.32 for residential customers, $48.84 for non-residential customers less than 3 MW, and $146.53 for non-residential customers equal to or greater than 3 MW.

APS estimates that the average monthly REST bill for residential customers would be $1.19 and that 78.9 percent of residential customers would reach the $1.32 monthly cap. The average monthly REST bill for small general service customers would be $4.47, and only 9.2 percent of the small general service customers would reach the $48.84 monthly cap.

Staff's Proposed Option B: The Modified Distributed Renewable Energy Requirement

When the Commission developed and adopted the Distributed Renewable Energy Requirement, it recognized that a goal of 30 percent of the portfolio dedicated exclusively to distributed renewable energy systems was an ideal way to broaden the development of renewable technologies in Arizona. The Commission also realized that it was prudent to achieve that goal slowly by starting with 5 percent as a distributed requirement and slowly ramping up the requirement to the desired 30 percent over a six-year period.

At the same time, the Commission determined that a reasonable mixture of system types would require one-half of the Distributed Renewable Energy Requirement from residential applications and one-half of the requirement from non-residential, non-utility applications. The REST Rules also allow for a Wholesale Distributed Generation Component that can meet up to 10 percent of the annual DRE requirement from non-utility owned generators that sell electricity at wholesale to Affected Utilities.

Unfortunately, at the time the REST Rules were being developed, no consideration was given to the possibility of ramping-up the residential and non-residential requirements slowly over a number of years. Similarly, no consideration was given to increasing the Wholesale Distributed Generation Component to a percentage greater than 10 percent.

The Residential Incentive Challenge

The biggest problem facing the utilities in the implementation of their REST Plans is the extremely high cost of providing incentives to residential customers that are substantial enough to encourage thousands of customers to opt for renewable energy systems. To date, the best way to encourage residential customers has been to offer an up-front incentive which covers up to one-half of the system's installed cost.

Although this UFI has been successful, it is a very costly way to provide large numbers of residential installations. The effect is to pay for 30 years of renewable kWh energy savings in the first year. This means that the first year's cost to the utilities (up to half the system installed cost) is extremely large, followed by 29 or more years of no cost to the utility.

It is this residential incentive which dominates the APS budget in its proposed implementation plan. APS proposes $26.055 million in incentives to reach the residential target of 5 percent of the annual REST requirement. Although APS has not broken down its Administration, Implementation, Marketing & Outreach, and Commercialization and Integration costs by residential and non-residential customers, Staff estimates that from 60-75 percent of those costs will be allocated to meeting the residential requirement. So, for an APS-proposed total of $13.6 million for Administration, Implementation, Marketing & Outreach, and Commercialization and Integration, approximately $8-10 million will be for residential applications. Combined with the proposed $26.055 million for residential incentives, the impact of residential system programs will consume from $34-36 million of the proposed 2008 APS budget of $48.2 million.

Staff's Proposed Solution to the Residential Incentive Challenge

One reason that the residential incentive problem is so large is that the REST Rules require that 50 percent of the Distributed Renewable Energy Requirement set forth in A.A.C. R14-2-1805 must come from residential customers. The rule, however, does not provide a "ramp up" period for this requirement.

Staff had recommended that both the overall Annual Renewable Energy Requirement and the Distributed Renewable Energy Requirement be ramped up slowly in order to allow the utilities and the renewable energy industry to gradually expand their efforts to meet the annual increases in both requirements. A similar gradual ramp-up for the residential and non-residential set-asides in the Distributed Renewable Energy Requirement was not considered.

The dilemma is compounded by the fact that the REST Rulemaking process took much longer to complete than originally anticipated. In January 2004, when the REST process started, it was anticipated that the REST Rules would be adopted by late 2005 or early 2006. That is why the first REST Annual Renewable Energy Requirement was set for 2006.

Unfortunately, no REST Plans were implemented in either 2006 or 2007, but the annual REST requirements continued to grow each year. The effect of this delay is that, in 2008, the utilities must play "catch-up" for the missed 2006 and 2007 calendar year requirements, making it even more difficult for them to bridge the large gap from the older EPS requirements to the newer, and much larger, REST requirements.

During the REST Rules process, it became clear that, in the future, the Commission may need to "tweak" or adjust the REST process as conditions change. The Implementation Plan review process provides an opportunity for such adjustments.

Staff recommends that no changes be made to the overall Annual Distributed Renewable Energy Requirement. The ramp-up, as defined in the Rules, would continue as specified.

Staff believes that, if the Commission were to gradually increase the residential and non-residential requirements to the desired 50 percent split, and allow, in the next five years, a larger percentage for the Wholesale Distributed Generation Component, the need for large funding increases in the early years of the REST Rules would be greatly reduced. A gradual ramp-up would allow customer markets to grow at a reasonable rate and allow the renewable industry to expand gradually to meet the slower growth.

Staff recommends that the Commission approve for APS a six-year ramp-up of the allocation of the annual Distributed Renewable Energy Requirement. In 2008, APS would be required to provide a minimum of 25 percent of the requirement from residential customers and 25 percent of the requirement from non-residential customers. In addition, Staff recommends that the allocation for kWh from the Wholesale Distributed Generation Component, authorized by A.A.C. R14-2-1805.E, be allowed to provide up to 50 percent of the requirement in the first two ramp-up years. Staff's proposed ramp-up recommendation is:

Staff's Proposal for a Modified Distributed Renewable Energy Requirement

Current DR Requirement		**Allocation of the DRE Requirement**		
Year	D.R. %	Residential (Customer-Sited)	Non-Residential (Customer Sited)	Wholesale Distributed Generation Component*
2008	10%	Minimum 25%	Minimum 25%	Up to 50%
2009	15%	Minimum 25%	Minimum 25%	Up to 50%
2010	20%	Minimum 30%	Minimum 30%	Up to 40%
2011	25%	Minimum 35%	Minimum 35%	Up to 30%
2012	30%	Minimum 40%	Minimum 40%	Up to 20%
2013 and after	30%	50%	50%	Up to 10%

*Note: The Wholesale Distributed Generation component counts as part of the Non-Residential component only.

If the Commission accepts the premise of Staff's Proposed Option B, that a gradual ramp-up of the allocation of the Distributed Renewable Energy Requirement is in the best interests of all parties, there can be a significant reduction in the funding required to meet the REST Rules in the early years.

For instance, if the residential allocation for 2008 is 25 percent rather than 50 percent of the Distributed requirement, APS would only need $13 million for residential incentives rather than its proposed $26.055 million. Similarly, since the Administration, Implementation, Marketing, Outreach, and Commercialization and Integration costs are primarily driven by numbers of installed distributed systems, the cost of these proposed programs should also be cut in half or more, from APS' proposed $13,555,150 for the distributed systems to less than $5,000,000.

Staff has reviewed the APS REST Plan and believes that, as adjusted in Staff's Proposed Option B, APS should be able to meet the REST Requirements for 2008, for a cost of $30,750,000. This would include an Administration, Implementation, Marketing, Outreach, and Commercialization and Integration budget of no more than $5.9 million, which is less than 20 percent of the total APS funding.

In order to collect the REST funding at the $27 million per year rate, the APS Adjustor rate would need to be $0.002962 per kWh, with monthly caps of $1.18 for residential customers, $44.01 for non-residential customers less than 3 MW, and $132.04 for non-residential customers equal to or greater than 3 MW.

APS estimates that the average monthly REST bill for residential customers would be $1.07 and that 78.9 percent of residential customers would reach the $1.18 monthly cap. The average monthly REST bill for small general service customers would be $4.03, and only 9.2 percent of the small general service customers would reach the $44.01 monthly cap.

Staff proposes, in Option B, that APS use the following sources of funds for the 2008 budget of $30.75 million:

EPS Funds rolled over from 2007	$ 3,500,000
Renewable Funding in Base Rates	6,000,000
Estimated Green Power Revenue	1,000,000
Reset of Adjustor to Collect $27 million annually (or $20.25 million in 9 months April – December 2008)	20,250,000
	$30,750,000

Comparison of APS Proposed Budget to staff Option B Budget

APS REST Program Elements	APS Filing Proposed Funding	Option B Staff Proposed Funding
Incentives (D.E.)		
Residential (UFI)	$26,055,000	$13,000,000
Non-Residential		
(UFI)	$ 661,000	$ 1,550,000
(PBI)	$ 979,000	$ 3,000,000
Existing (PBI)	$ 1,000,000	$ 1,000,000
Wholesale Component	--	$ 1,000,000
Subtotal	$28,695,000	$19,550,000
Renewable Generation kWh Purchase	$ 5,300,000	$ 5,300,000
Administration, Implementation, Marketing, Outreach, Commercialization and Integration	$15,152,710	$ 5,900,000
Total	$49,147,771	$30,750,000

Staff believes that Option B is a logical first-year step toward meeting the REST requirements. The gradual ramp-up of the allocation of the Distributed Renewable Energy Requirement will allow the renewable industry a reasonable time frame in which to expand the industry infrastructure required to provide the larger number of systems needed to meet the desired 50 percent residential set-aside.

Staff Analysis of Other Issues

Staff agrees with APS that the Order in this docket should clearly state that the REST Rules are the appropriate standard that applies to renewable energy issues for APS and that rulings pertaining to the former Environmental Portfolio Standard Rules are no longer binding on APS.

Staff also agrees that the REST Rules have superseded the EPS rules and that the partial variance granted by the Commission in Decision No. 66565 has been superseded.

Staff further agrees that renewable reporting requirements in the REST Rules have replaced similar reporting requirements in Decision Nos. 58643, 59601, 63354, and 66565.

Synopsis of Filing and Staff Recommendations

Staff has prepared a synopsis of the APS filing that compares it to Staff Option A and Staff Option B. Staff recommends that the Commission approve Staff Option B as the best available alternative.

	APS Filing	Staff Option A	Staff Option B
Proposed Budget	$48.20 million	$33.00 million	$30.75 million
Annual Adjustor Target	$42.2 million	$30.00 million	$27.00 million
Adjustor	$0.004629 per kWh	$0.003288 per kWh	$0.002962 per kWh
Residential Cap	$1.85	$1.32	$1.18
Small Comm. Cap	$68.78	$48.84	$44.01
Large Customer Cap	$206.33	$146.53	$132.01

Staff recommends that the Commission order APS to modify its Distributed Energy Administration Plan, as recommended in the Staff Report, to allow eligible systems installed as early as January 1, 2004, to be defined as "new" systems for funding.

Staff recommends that the Commission deny APS' request to establish a "DE Review Panel" as proposed in the Distributed Energy Administration Plan.

Staff recommends that the Commission order APS to count Green Power Sales under Rate Schedules GPS-1 and GPS-2 toward meeting the REST requirements.

Staff recommends that the Commission waive the 50 percent allocation of the Distributed Renewable Energy Requirement in R14-2-1805.D and the 10 percent limit on the Wholesale Distributed Generation Component in R14-2-1805.E for APS, and replace the requirements with Staff's proposed modified Distributed Renewable Energy Requirement, as described herein.

Staff recommends that the 2008 APS REST Implementation Plan, as modified by Staff's recommendations, be approved.

Staff recommends that the 2008 annual budget for the APS REST Implementation Plan be set at $30,750,000.

Staff recommends that the APS Renewable Energy Adjustor be reset to a rate of $0.002962 per kWh, with monthly caps of $1.18 for residential customers, $44.01 for non-residential customers less than 3 MW, and $132.04 for non-residential customers equal to or greater than 3 MW.

Staff recommends that the Commission provide clarification in the Order that the REST Rules have superseded the EPS rules for APS and that the partial variance to the EPS Rules granted by the Commission in Decision No. 66565 has been superseded by the REST Rules.

Staff recommends that the Commission order that the renewable reporting requirements in the REST Rules have replaced similar reporting requirements in Decision Nos. 58643, 59601, 63354, and 66565.

Staff recommends Commission approval of Adjustment Schedule SDR: Self-Directed Renewable Resources.

Ernest G. Johnson
Director
Utilities Division

EGJ:RTW:lhm\JFW

ORIGINATOR: Ray T. Williamson

LIST OF APPENDICES

**ARIZONA CORPORATION COMMISSION
STAFF'S FIRST SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
RES IMPLEMENTATION PLAN
Docket No. E-01345A-07-0468
August 22, 2007**

1.1 (a) Please explain why any of the information included in Exhibit 2: APS RES Budget Summary of the APS RES Implementation Plan 2008-2012 should be considered as confidential information.

(b) How can the general public and interested stakeholders expect to have a meaningful participation in the Commission approval process of the APS REST Implementation Plan without knowing how major implementation and administrative expenditures (over $13.6 million) will be allocated?

RESPONSE:

(a) APS has determined that budget summary information could be disclosed publicly without jeopardizing APS' ability to engage in competitive energy markets. In its updated Implementation Plan filed August 30, 2007, APS removed the redacting of the budget information.

(b) APS has determined that implementation and administrative expenditures could be disclosed publicly without jeopardizing APS' ability to engage in competitive energy markets. In its updated Implementation Plan filed August 30, 2007, APS removed the redacting of the implementation and administration information. Additional detail for the line items listed in Exhibit 2 is also included in response to Question 1.2.

ARIZONA CORPORATION COMMISSION
STAFF'S FIRST SET OF DATA REQUESTS TO
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1.2 Please provide detailed information on specific programs, projects, and expenditures that comprise the basic parts of each sum labeled Administration, Implementation, Commercialization and Integration, and Marketing and Outreach as shown in Exhibit 2: APS RES Budget Summary.

RESPONSE:

APS has included three pages following this response to provide more detail for the Administration, Implementation, Commercialization & Integration, and Marketing & Outreach line items included in Exhibit 2. APS08443 details the cost categories for Exhibit 2 except energy purchases and incentives. APS08444 describes a number of potential studies that APS is considering conducting with the funding allocated in the Commercialization & Integration budget. The studies provided in APS08444 are provided for informational purposes only. APS has not determined which studies will be conducted, and the studies considered may change depending on many factors including market conditions, legislation, or technology improvements.

Generally, Administration includes the cost directly associated with program management and reporting. Implementation includes the transactional costs associated with the program (i.e. renewable generation procurement, distributed reservation processing, interconnection processes). The Commercialization & Integration line item includes costs of studies to enhance and accelerate the development, deployment, commercialization, and utilization of renewable resources. Marketing & Outreach includes the cost of the marketing, advertising, promotion and awareness building for the Distributed Energy program. This information is provided for budget purposes and is based on anticipated expenditures only. Actual expenditures will vary and depend on many factors including program and project development, customer participation, market research, and regular evaluation of the efficiency and effectiveness of the program.

**ARIZONA CORPORATION COMMISSION
STAFF'S FIRST SET OF DATA REQUESTS TO
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RES IMPLEMENTATION PLAN
Docket No. E-01345A-07-0468
August 22, 2007**

1.3 Please explain why the final line in Exhibits 3A and 3B, entitled "Total Generation" is considered confidential information.

RESPONSE:

APS has determined that project generation and capacity information could be disclosed publicly with out jeopardizing APS' ability to engage in competitive energy markets. In its updated Implementation Plan filed August 30, 2007, APS removed the redacting of the information contained in Exhibits 3A and 3B.

ARIZONA PUBLIC SERVICE COMPANY
RES Budget Detail

	2008	2009	2010	2011	2012
Total RES Budget	$ 48,200,000	$ 52,500,000	$ 67,800,000	$ 82,900,000	$ 95,700,000
Renewable Generation:					
Administration					
Payroll (Fully Loaded)	$ 574,083	$ 594,175	$ 614,972	$ 636,496	$ 658,773
Office equipment/supplies	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000
Travel, dues, memberships	$ 95,000	$ 95,000	$ 95,000	$ 95,000	$ 95,000
Total	$ 714,083	$ 734,175	$ 754,972	$ 776,496	$ 798,773
Implementation					
Payroll (Fully Loaded)	$ 383,479	$ 396,900	$ 410,792	$ 425,170	$ 440,051
Commercialization & Integration					
See list of potential studies	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Distributed Energy:					
Administration					
Payroll (Fully Loaded)	$ 1,418,644	$ 1,468,296	$ 1,519,687	$ 1,572,876	$ 1,627,926
Office equipment/supplies	$ 55,000	$ 55,000	$ 55,000	$ 55,000	$ 55,000
Travel, dues, memberships	$ 105,000	$ 105,000	$ 105,000	$ 105,000	$ 105,000
Total	$ 1,578,644	$ 1,628,296	$ 1,679,687	$ 1,732,876	$ 1,787,926
Implementation					
Payroll (Fully Loaded)	$ 2,910,370	$ 2,589,201	$ 3,193,166	$ 3,787,969	$ 4,560,246
Transportation/Vehicles	$ 69,600	$ 64,459	$ 65,840	$ 68,487	$ 69,957
Materials (Locks, tags, tools)	$ 54,305	$ 54,135	$ 83,032	$ 107,682	$ 121,071
Meters	$ 337,231	$ 339,270	$ 573,543	$ 770,295	$ 994,272
Information Services Technology	$ 1,800,000	$ 88,000	$ 91,000	$ 94,000	$ 97,000
Total	$ 5,171,506	$ 3,135,066	$ 4,006,582	$ 4,828,434	$ 5,842,546
Marketing & Outreach					
Market Research	$ 40,000	$ 120,000	$ 40,000	$ 120,000	$ 40,000
Contractor/Installer Efforts	$ 140,000	$ 165,000	$ 190,000	$ 215,000	$ 240,000
Customer Conversion Efforts	$ 1,640,000	$ 930,000	$ 930,000	$ 930,000	$ 930,000
Program Awareness (Placements)	$ 3,835,000	$ 3,454,500	$ 3,112,050	$ 3,112,050	$ 2,803,845
Collateral Design and Fulfillment	$ 650,000	$ 400,000	$ 325,000	$ 300,000	$ 400,000
Total	$ 6,305,000	$ 5,069,500	$ 4,597,050	$ 4,677,050	$ 4,413,845
Commercialization & Integration					
See list of potential studies	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Total Administration	$ 2,292,726	$ 2,362,472	$ 2,434,658	$ 2,509,371	$ 2,586,699
Percentage of Total Budget	5%	4%	4%	3%	3%
Total Implementation	$ 5,554,984	$ 3,531,966	$ 4,417,374	$ 5,253,604	$ 6,282,596
Percentage of Total Budget	12%	7%	7%	6%	7%
Total Marketing & Outreach	$ 6,305,000	$ 5,069,500	$ 4,597,050	$ 4,677,050	$ 4,413,845
Percentage of Total Budget	13%	10%	7%	6%	5%
Total Commercialization & Integration	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
Percentage of Total Budget	2%	2%	1%	1%	1%

ARIZONA PUBLIC SERVICE COMPANY
COMMERCIALIZATION & INTEGRATION DETAIL

As described in the APS RES Implementation Plan, APS would generally categorize studies under the three categories listed below. This listing is not inclusive of all possible studies and could change depending on many factors such as market conditions, legislation, or technology improvements. APS has not proposed to complete any specific study at this time and the costs listed could vary significantly depending on the scope of the specific study areas. These studies may be undertaken by APS solely or in partnership with private industry, public research institutions such as Arizona Universities, or governmental laboratories such as Department of Energy Laboratories. In Exhibit 2 APS depicted the Commercialization & Integration budget as split evenly between Renewable Generation and Distributed Energy; however, that allocation is intended to be dynamic and will be modified to achieve maximum program benefits.

Distribution System Impacts

These studies will examine the impacts of distributed energy resources on the power distribution system in order to maximize the value of the distributed technologies. Specific areas of study would include impacts on the general distribution system, design and construction, operations and maintenance, safety, power quality, and load forecasting. Some examples include:

- Analysis and optimization of Arizona distribution system design and operation to best interface with increasing numbers of renewable distributed energy systems. Examples of this type of study could include identification of distribution system design elements that effectively leverage benefits of renewable distributed energy systems. Depending on the size and scope of the study, cost could range from $150,000 to $400,000.
- A review of the impact of large numbers of renewable distributed energy systems on the Arizona distribution system for the purpose of better quantifying and improving the value of the capacity provided by these technologies. Examples of this type of study could include analysis of the technology interface with the existing Arizona distribution system. Depending on the size and scope of the study, cost could range from $200,000 to $500,000.

Renewable Technologies and Available Resources

These include studies of the attributes, characteristics, and costs of renewable energy technologies, as well as the availability and viability of renewable energy resources in the state of Arizona and the western United States. Specifically, APS would consider exploring opportunities for geothermal resources, monitoring and forecasting wind resources, evaluating attributes specific to solar sites for development, and investigating and field monitoring small scale hydropower opportunities. Some examples include:

- The integration and optimization of solar facilities into the Arizona electrical system to meet the state's capacity growth requirements. Examples of this type of study would include plant sizing, location, and storage strategies. Depending on the size and scope of the study, cost could range from $300,000 to $1,500,000.

- Much the Arizona renewable resource information is based on incomplete resource data. Additional review and field verification of resource data is needed to encourage additional development within the state. Examples of the data which could benefit from additional review are Arizona geothermal and concentrating solar resource measurements. Depending on the size and scope of the study, cost could range from $200,000 to $2,500,000 or more.
- Many new distributed technologies will be eligible for incentives in the APS Distributed Energy program. The performance of these systems is not well known and the capacity/energy benefits vary significantly. In addition, through understanding the performance of these systems, technology optimization opportunities and best practices can be identified. Depending on the size and scope of the study, cost could range from $100,000 to $500,000.

Transmission and System Integration Impacts

These studies would be designed to provide APS with a better understanding of the operational and cost issues associated with integrating renewable generation into the transmission system. APS would like to evaluate opportunities to effectively plan and integrate renewable energy resources in the APS generation, transmission and distribution systems. APS recognizes the critical importance of transmission in the success of the expansion of renewable generation. Any significant increase in renewable generation must be integrated into the long-term planning for transmission to be successful. Some examples include:

- Additional integration cost evaluations include large scale photovoltaic installations and solar thermal installations. Depending on the size and scope of the study, cost could range from $100,000 to $250,000.
- Resource and production forecasting provides an opportunity to further improve the efficient use of wind and solar resources within the Arizona electrical utility system. Production forecasting study would work to quantify the value of forecasting as well as optimal forecasting information and systems. Depending on the size and scope of the study, cost could range from $100,000 to $200,000.
- Review the future transmission needs and opportunities for optimizing the use of transmission in relation to renewable resources and development opportunities. Depending on the size and scope of the study, cost could range from $150,000 to $400,000.

ARIZONA CORPORATION COMMISSION
STAFF'S SECOND SET OF DATA REQUESTS TO ARIZONA PUBLIC SERVICE COMPANY
RES IMPLEMENTATION PLAN
Docket No. E-01345A-07-0468
AUGUST 29, 2007

2.1 Please provide information about the funds that would be collected from the Adjustment Schedule RES as proposed in the 2008 APS REST Implementation Plan. Please use the formats that were utilized in 2004, 2005, and 2006 during the REST Rules development process. As a minimum, the information provided should include:

a. Total funds collected by each customer category (residential, small commercial, large industrial).
b. Average customer adjustor charge per bill.
c. Percent of customers reaching the caps.
d. Examples of monthly kWh usage and adjustor charge amounts for a variety of customer types. Please use the same types of customers used in similar 2004-2006 analyses provided to the Commission. (Hair stylist, mall, large hotel, motel, fast food, convenience store, etc.)
e. Summary of estimated adjustor charges per bill for small commercial customers by dollar ranges ($0-$10, $10.01-$20, $20.01-$30, etc.). Show how many customers would be in each dollar range.

RESPONSE:

Note: All responses are based on APS' proposed 2008 budget of $42.2 million which was included in the Amended Implementation Plan.

2.1 a 2.1 b 2.1 c

REST Funding from Adjustment Schedule RES
At APS Proposed $42.2M RES 2008 Budget

	Total $ (000)	*Average $ per bill*	*% Reaching Cap*
Residential	$20,417	$1.67	78.9%
Small General Service	$21,573	$6.30	9.2%
Large General Service	$210	$206.33	100.0%
Total	$42,200		

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2.1 d: See Attached APS08448

ARIZONA CORPORATION COMMISSION
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2.1 e:

**SUMMARY OF ESTIMATED 2008 RES CHARGES
USING TY 2006 E-32 BILL FREQUENCY
AT PROPOSED PRICE AND CAPS
(\$0.004629/kWh capped at \$68.78)**

Estimated RES Charge per Bill	Estimated Number of Under 3 MW Customers
\$0 - \$10.00	21,777
\$10.01 - \$20.00	29,752
\$20.01 - \$30.00	22,789
\$30.01 - \$40.00	13,443
\$40.01 - \$50.00	1,365
\$50.01 - \$60.00	6,731
\$60.00 - Cap	14,219

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2.2 If the Adjustor was reset to collect $33 million, instead of the proposed $43.2 million, what would be the appropriate adjustor rate and caps needed to collect $33 million?

RESPONSE:

	RES Rates (\$33M 2008 Budget)
Per kWh	**$0.003614**
Residential Cap	**$1.45**
Small C/I Cap (under 3MW)	**$53.69**
Large C/I Cap (over 3MW)	**$161.06**

ARIZONA CORPORATION COMMISSION
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RES IMPLEMENTATION PLAN
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AUGUST 29, 2007

2.3 If the Adjustor was reset to collect $36 million, instead of the proposed $43.2 million, what would be the appropriate adjustor rate and caps needed to collect $36 million?

RESPONSE:

	RES Rates (\$36M 2008 Budget)
Per kWh	**$0.003946**
Residential Cap	**$1.58**
Small C/I Cap (under 3MW)	**$58.62**
Large C/I Cap (over 3MW)	**$175.86**

**ARIZONA CORPORATION COMMISSION
STAFF'S SECOND SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
RES IMPLEMENTATION PLAN
Docket No. E-01345A-07-0468
AUGUST 29, 2007**

2.4 Similar to RW 2-1, please provide information on amounts collected and customer impacts if the $33 million RES Adjustor were approved by the Commission.

RESPONSE:

REST Funding from Adjustment Schedule RES
At $33M RES 2008 Budget

	Total $ (000)	*Average $ per bill*	*% Reaching Cap*
Residential	$15,994	$1.31	78.9%
Small General Service	$16,842	$4.92	9.2%
Large General Service	$164	$161.06	100.0%
Total	$33,000		

**ARIZONA CORPORATION COMMISSION
STAFF'S SECOND SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
RES IMPLEMENTATION PLAN
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2.5 Similar to RW 2-1, please provide information on amounts collected and customer impacts if the $36 million RES Adjustor were approved by the Commission?

RESPONSE:

REST Funding from Adjustment Schedule RES
At $36M RES 2008 Budget

	Total $ (000)	*Average $ per bill*	*% Reaching Cap*
Residential	$17,433	$1.43	78.9%
Small General Service	$18,389	$5.37	9.2%
Large General Service	$179	$175.86	100.0%
Total	$36,001		

**ARIZONA CORPORATION COMMISSION
STAFF'S SECOND SET OF DATA REQUESTS TO
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Docket No. E-01345A-07-0468
AUGUST 29, 2007**

2.6 Please provide a summary page that shows a side-by-side comparison of amounts collected and customer impacts with four column headings: Existing EPS Surcharge ($10 M), $33M Adjustor, $36M Adjustor, APS Proposed ($43.2M) Adjustor.

RESPONSE:

See Response to 2.1 (d), Attachment APS08448.

APS

EPS/RES Monthly Surcharges for a Variety of Typical Customers

	Existing EPS Surcharge	$33M RES Adjustor	$36M RES Adjustor	APS Proposed $42.2M RES Adjustor
Per kWh	$0.001112	$0.003614	$0.00395	$0.004629
Residential Cap	$0.44	$1.45	$1.58	$1.85
Small C/I Cap (under 3 M\	$16.52	$53.69	$58.61	$68.78
Large C/I Cap (over 3 MW	$49.57	$161.06	$175.83	$206.33

Customer Type	kWh / Month	RES/EPS Surcharges Per Month: Existing EPS Surcharge	$33M RES Adjustor	$36M RES Adjustor	APS Proposed $42.2M RES Adjustor
1 Hairstylist	3,900	$ 4.34	$ 14.09	$ 15.41	$ 18.05
2 Department Store	170,400	$ 16.52	$ 53.69	$ 58.61	$ 68.78
3 Mall	1,627,100	$ 49.57	$ 161.06	$ 175.83	$ 206.33
4 Retail Video Store	14,440	$ 16.06	$ 52.19	$ 57.04	$ 66.84
5 Large Hotel	1,067,100	$ 16.52	$ 53.69	$ 58.61	$ 68.78
6 Large Building Supply and Hardware Ret.	346,500	$ 16.52	$ 53.69	$ 58.61	$ 68.78
7 Hotel/Motel	27,960	$ 16.52	$ 53.69	$ 58.61	$ 68.78
8 Fast Food	60,160	$ 16.52	$ 53.69	$ 58.61	$ 68.78
9 Large High-Rise Office Building	1,476,800	$ 49.57	$ 161.06	$ 175.83	$ 206.33
10 Hospital (under 3MW)	1,509,600	$ 16.52	$ 53.69	$ 58.61	$ 68.78
11 Supermarket	233,600	$ 16.52	$ 53.69	$ 58.61	$ 68.78
12 Convenience Store	20,160	$ 16.52	$ 53.69	$ 58.61	$ 68.78
13 Dentist Office	2,000	$ 2.22	$ 7.23	$ 7.90	$ 9.26

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RW 3.1 In each instance where "Payroll (Fully Loaded)" is mentioned, please explain how many full time employees (FTEs) and part-time employees will be employed. What type of work activities will they perform?

RESPONSE:

These estimates are conservative in nature and are anticipated to change depending on many factors affecting the program which could include market conditions, regulatory and legislative mandates, and technology improvements. The number of FTEs included in the Amended RES Implementation Plan cost estimates, by budget category, is as follows:

	2008 FTE	2009 FTE	2010 FTE	2011 FTE	2012 FTE
Renewable Generation Implementation: Total Full Time Employees	3.00	3.00	3.00	3.00	3.00
Renewable Generation Administration: Total Full Time Employees	4.50	4.50	4.50	4.50	4.50
Distributed Energy Implementation: Total Full Time Employees & Equivalents **	30.30	24.28	29.33	34.06	39.86
Distributed Energy Administration: Total Full Time Employees	10.50	10.50	10.50	10.50	10.50

** Full Time Equivalents included in this line are employees that are allocated based on the number of hours needed to perform distributed installation tasks such as meter installations and system inspections.

Renewable Generation Implementation: This group is responsible for the management of the Company's portfolio of utility-scale renewable electric generation resources. The group directs the Company's solicitations, including renewable requests for proposal (RFP) and bi-lateral discussions which involves receipt and review of project proposals submitted independently by parties. The group leads the negotiation of agreements and manages the contract review and execution process. Renewable Generation Implementation performs all general contract administration, dispute resolution, renewable energy credit (REC) recording and management for the renewable generation agreements. Finally, the group monitors and reports the progress of projects under development and performance of the facilities under contracts.

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Renewable Generation Administration: Regular activities for this group include the assessment of opportunities related to renewable resources, program evaluation and internal management reporting, industry and institutional coordination, directing commercialization and integration studies, preparing all renewable compliance reporting and regulatory filings, and preparing and monitoring budgets. This group is also responsible for leading the Company's assessment of renewable technology and development opportunities, integration planning, project siting evaluation, and project oversight and management. This category includes time allocation for a portion of the Renewable Department management and support staff that are generally responsible for the day-to-day management, strategic direction, regulatory and compliance reporting, internal management reporting, and technical/engineering services related to the renewable generation program.

Distributed Energy Implementation: This category includes all of the personnel necessary to process distributed energy incentive transactions. As can be seen in the Amended Implementation Plan, Attachment A, Exhibit 4C, APS estimates that between 7,000 and 20,000 distributed energy installations annually will be necessary to achieve compliance between 2008 and 2012. The number of FTEs committed to distributed energy implementation will by adjusted by APS to meet customer demand. The majority of the personnel in this category are dedicated to processing reservations, inspecting systems and installing meters in the field, customer service, and payment processing. The remainder is the portion of marketing responsible for identifying and developing distributed energy participants and project development opportunities. As examples, the following is a listing of the functions related to the volume of transactions to be processed and the size of the program.

1. Reservation/Payment coordination: These positions are responsible for the reservation from receipt to system commissioning and final payment. In the case of PBIs, this includes the life of the agreement. APS personnel will review and approve reservations, arrange internal workflow for the requested project, and maintain customer contact.
2. Design engineers: These positions are responsible for the interconnection and meter placement processes. This includes system drawing review, communicating with customers and installers, and coordinating with APS operating personnel.
3. Field inspections: These positions are responsible for inspection and verification of distributed energy systems for program and safety compliance.
4. Customer associates: These are the initial point of contact for customers inquiring about the program and associated rate options. These are

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associates specifically trained on the specifics of the incentive programs and rate options available to customers interested in distributed energy.

5. Operations: These positions are based on hourly allocations of personnel necessary to inventory, install, and inspect meters and approve interconnection installations.
6. Transition contractors: These positions are intended to assist in the initial implementation phase as the program ramps from a few hundred transactions in 2007 to more than 7,000 in 2008. The technology improvements described in the response to RW 3-3 and anticipated process improvements will allow APS to eliminate these temporary positions in 2009 and beyond.

Distributed Energy Administration: Regular activities for this group include the day-to-day coordination and management of the distributed energy programs, development and ongoing analysis of customer programs, implementation of program marketing and marketing fulfillment, industry and stakeholder coordination, preparing all renewable compliance reporting and regulatory filings, preparing internal management reporting, directing commercialization and integration studies, and preparing and monitoring budgets. This category includes half of the time for the Renewable Department management and support staff that are generally responsible for the day-to-day management and strategic direction of the distributed energy programs, program development and analysis, program marketing, regulatory and compliance reporting, internal management reporting, and technical/engineering services.

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RW 3.2 In each instance where "Travel, dues, and memberships" is mentioned, please explain the kinds of expenditures that you expect.

RESPONSE:

It is expected that these line items will include travel and related expenses for program personnel to engage in on-sight project diligence reviews, oversight and management during project development, and on-going management and evaluation of renewable generation resources. The line items will also include industry membership fees, employee dues, and participation in industry specific professional organizations. These organizations maximize APS' ability to efficiently and effectively expand the program by leveraging industry learning related to resource development and integration, identifying strategic and immediate project opportunities, fine-tuning program design and implementation, and marketing of distributed energy programs. Examples of industry organizations in which APS maintains membership include American Council on Renewable Energy, the Solar Electric Power Association, the Geothermal Energy Association, the Utility Wind Integration Group, and the American Wind Energy Association.

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RW 3.3 Please explain the need for and details of the "Information Services Technology" item included as part of the Implementation portion of the Distributed Energy budget.

RESPONSE:

As part of APS' implementation of the RES distributed energy program, the number of customer participants is projected to increase from a few hundred in 2007 to as many as 20,000 by 2012. To accommodate this dramatic increase in participation APS will need to make a number of technology related improvements and additions. In order to satisfy customer and contractor informational needs, ensure sufficient rigor in our work management and data management systems, and provide necessary integrity in our customer billing, APS is automating processes, enhancing billing systems, and improving customer access to information. These improvements and additions will reduce the number of FTEs that would have otherwise been required to administer and implement the program. The projects proposed would be completed in 2008 with ongoing information services maintenance in the years following. The specific projects are as follows:

Distributed Energy Workflow: This project creates an integrated system that will serve as a database and workflow tool for all program information. The system is designed to track reservations from the point of receipt through the entire life cycle and will be integrated with current billing and metering systems to automate some processes that are currently manually performed. The database will be used for compliance and internal reporting, data retrieval, and ad hoc reporting purposes.

Billing/Metering system upgrades: The APS billing system will be upgraded to automate billing for rates ancillary to distributed energy such as the net metering/net billing EPR-2 and EPR-5 rates. These processes are currently manually performed. The metering systems will also need to be upgraded to track and report on distributed energy system performance. This will allow customers to receive system performance information as well. This project began in 2007 and will be completed in 2008.

Rate Comparison: This project will produce a tool that will enhance customer's ability to compare rate offerings with various distributed energy system characteristics such as types of systems and system sizes. This will assist customers in evaluating and maximizing their potential benefits.

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Ongoing support: The systems and tools previously mentioned will require ongoing maintenance and support. The Information Services Technology amounts shown for the years 2009 to 2012 reflect only this estimated cost.

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RW 3.4 Please explain, in detail, the expenditures noted as "Contractor/Installer Efforts" and "Customer Conversion Efforts" under the Marketing & Outreach portion of the Distributed Energy budget.

RESPONSE:

Contractor/Installer Efforts include the costs to develop, create, and implement cooperative marketing programs with distributed energy marketers and installers. Cooperative marketing programs can include development and maintenance of installer training and certification programs, pooled advertising opportunities, and/or coordinated collateral development and deployment. In general, cooperative marketing programs are recognized to leverage advertising budgets which result in larger campaigns with extended consumer reach. These programs result in broader and deeper marketing reach and increased placement frequency, as well as a stronger program market presence and better relationships with the installer network. These programs can include shared placements through television, radio, print ads, and/or the internet, depending on the needs of our customers.

Development of cooperative materials will help to ensure cohesive messaging between APS' marketing outreach efforts and those of the installer network. Cooperative marketing that includes periodic classes for industry experts can be an important part of maintaining quality and consistency as the market grows and expands.

Customer Conversion Efforts include a variety of activities that are intended to directly engage the customer. Direct mail is likely a significant part of these efforts. The marketing program goal is to reach all of our customers to inform them of the potential benefits of distributed energy resources and the incentives available to encourage the installation of those systems. In addition, other tactics used to inform and encourage customer participation that are considered as part of Customer Conversion Efforts include participation in trade shows, customer workshops, home builder partnerships, and customer specific marketing efforts.

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RW 3.5 Please explain how the funding for "Program Awareness (Placements)" will be allocated. Who are the target audiences and which media will be utilized?

RESPONSE:

Our "Program Awareness" activities include the placement of television, radio, print, and traditional/electronic billboard ads. The cost for collateral production is also a part of this budget category. The initial plan to raise awareness allocates approximately half of the funds to television, a quarter to radio, and the remainder among the various print mediums. Target audiences and actual expenditures will vary and depend on a number of factors including customer response, market research, and overall evaluation of the efficiency and effectiveness of the placements.

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RW 3.6 Please explain what "Collateral Design and Fulfillment" in the Marketing & Outreach portion of the budget will include.

RESPONSE:

Collateral Design and Fulfillment includes all of the activities necessary to develop the various marketing collateral. This would include, but is not limited to, the copy development and creative design for brochures, direct mail, guides and brochures, bill inserts, display booths/exhibits, and advertising materials.

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RW 3.7 In "Exhibit 1: APS RES Program Summary," the Estimated Existing Distributed Energy line is shown as 14,034 MWh. What portion of this amount is residential and what portion is non-residential?

RESPONSE:

Residential is 5,441 MWh, Non-Residential is 8,593 MWh. This estimate is based on the active reservations at the time the Plan was filed projected through the end of 2007. The actual amount at the end of 2007 may be different and the split between Residential and Non-Residential may be different.

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Staff 5.1 If the Adjustor was reset to collect $27 million, what would be the appropriate adjustor rate and caps needed to collect $27 million?

RESPONSE:

	*RES Rates** *($27M 2008 Budget)*
Per kWh	**$0.002962**
Residential Cap	**$1.18**
Small C/I Cap (under 3MW)	**$44.01**
Large C/I Cap (over 3MW)	**$132.04**

*Rates assume the same proportionality between rate classes that is in place with the current adjustor.

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Staff 5.2 If the Adjustor was reset to collect $30 million, what would be the appropriate adjustor rate and caps needed to collect $30 million?

RESPONSE:

	*RES Rates** *($30M 2008 Budget)*
Per kWh	**$0.003288**
Residential Cap	**$1.32**
Small C/I Cap (under 3MW)	**$48.84**
Large C/I Cap (over 3MW)	**$146.53**

*Rates assume the same proportionality between rate classes that is in place with the current adjustor.

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Staff 5.3 In the same format used in responding to RW 2.1, provide the following information for the instances of a $27 million and a $30 million collection:

A) Total funds collected by each customer category (residential, small commercial, large industrial).
B) Average customer adjustor charge per bill.
C) Percent of customers reaching the caps.
D) Examples of monthly kWh usage and adjustor charge amounts for a variety of customer types. Please use the same types of customers used in similar 2004-2006 analyses provided to the Commission. (Hair stylist, mall, large hotel, motel, fast food, convenience store, etc.)
E) Summary of estimated adjustor charges per bill for small commercial customers by dollar ranges ($0-$10, $10.01-$20, $20.01-$30, etc.). Show how many customers would be in each dollar range.

RESPONSE:

5.3 (A – C):

REST Funding from Adjustment Schedule RES
At $27M RES 2008 Budget

	Total $ (000)	*Average $ per bill*	*% Reaching Cap*
Residential	$13,028	$1.07	78.9%
Small General Service	$13,804	$4.03	9.2%
Large General Service	$135	$132.04	100.0%
Total	$26,967		

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5.3 (A – C):

REST Funding from Adjustment Schedule RES
At $30M RES 2008 Budget

	Total $ (000)	*Average $ per bill*	*% Reaching Cap*
Residential	$14,559	$1.19	78.9%
Small General Service	$15,322	$4.47	9.2%
Large General Service	$149	$146.53	100.0%
Total	$30,030		

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5.3 – D:

EPS/RES Monthly Surcharges for a Variety of Typical Customers

	Existing EPS Surcharge	$27M RES Adjustor	$30M RES Adjustor
Per kWh	$0.001112	$0.002962	$0.003288
Residential Cap	$0.44	$1.18	$1.32
Small C/I Cap (under 3 MW)	$16.52	$44.01	$48.84
Large C/I Cap (over 3 MW)	$49.57	$132.04	$146.53

		RES/EPS Surcharges Per Month		
Customer Type	kWh / Month	Existing EPS Surcharge	$27M RES Adjustor	$30M RES Adjustor
1 Hairstylist	3,900	$ 4.34	$ 11.55	$ 12.82
2 Department Store	170,400	$ 16.52	$ 44.01	$ 48.84
3 Mall	1,627,100	$ 49.57	$ 132.04	$ 146.53
4 Retail Video Store	14,440	$ 16.06	$ 42.77	$ 47.48
5 Large Hotel	1,067,100	$ 16.52	$ 44.01	$ 48.84
6 Large Building Supply and Hardware Retail	346,500	$ 16.52	$ 44.01	$ 48.84
7 Hotel/Motel	27,960	$ 16.52	$ 44.01	$ 48.84
8 Fast Food	60,160	$ 16.52	$ 44.01	$ 48.84
9 Large High-Rise Office Building	1,476,800	$ 49.57	$ 132.04	$ 146.53
10 Hospital (under 3MW)	1,509,600	$ 16.52	$ 44.01	$ 48.84
11 Supermarket	233,600	$ 16.52	$ 44.01	$ 48.84
12 Convenience Store	20,160	$ 16.52	$ 44.01	$ 48.84
13 Dentist Office	2,000	$ 2.22	$ 5.92	$ 6.58

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5.3 – E:

AT 2008 $27 M BUDGET PRICE AND CAPS
($0.002962/kWh capped at $44.01)

Estimated RES Charge per Bill	Estimated Number of Under 3 MW Customers
$0 - $10.00	38,562
$10.01 - $20.00	36,613
$20.01 - $30.00	13,430
$30.01 - $40.00	7,443
$40.01 - Cap	14,028

AT 2008 $30 M BUDGET PRICE AND CAPS
($0.003228/kWh capped at $48.84)

Estimated RES Charge per Bill	Estimated Number of Under 3 MW Customers
$0 - $10.00	35,923
$10.01 - $20.00	28,722
$20.01 - $30.00	23,264
$30.01 - $40.00	7,701
$40.01 - Cap	14,466

BEFORE THE ARIZONA CORPORATION COMMISSION

MIKE GLEASON
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
KRISTIN K. MAYES
Commissioner
GARY PIERCE
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN, DISTRUBTED ENERGY ADMINISTRATION PLAN, CUSTOMER SELF-DIRECT RENEWABLE RESOURCE TARIFF, AND RESET OF RENEWABLE ENERGY ADJUSTOR	DOCKET NO. E-01345A-07-0468 DECISION NO. __________ <u>ORDER</u>

Open Meeting
TO BE DETERMINED
Phoenix, Arizona

BY THE COMMISSION:

<u>FINDINGS OF FACT</u>

1. Arizona Public Service Company ("APS" or "Company") is certificated to provide electric service as a public service corporation in the State of Arizona.

Background

2. On August 7, 2007, Arizona Public Service Company ("APS") filed its 2008 Renewable Energy Standard Implementation Plan ("The Implementation Plan"), its Distributed Energy Administration Plan ("DEAP"), its Customer Self-Directed Renewable Resource Tariff, and its Reset of the APS Renewable Energy Adjustor. This filing is in response to requirements in the certified Renewable Energy Standard and Tariff Rules ("REST Rules"). On August 30, 2007, APS filed an Amended Renewable Energy Standard Implementation Plan and an Amended Renewable Energy Standard Rate Schedule.

3. On December 17, 2007, APS and the Solar Advocates jointly proposed an alternative Implementation Plan and funding mechanism.

4. On December 21, 2007, APS filed modified exhibits that reflected the changes that would be required if the alternative Implementation Plan and funding mechanism were to be approved by the Commission.

The APS REST Implementation Plan 2008 to 2012

5. The APS REST Implementation Plan 2008 to 2012 is a five-year plan describing how APS intends to comply with the REST Rules requirements. In a separate document, Attachment B of the APS application, APS has filed its Distributed Energy Administration Plan ("DEAP"). The DEAP describes how APS intends to meet the annual Distributed Renewable Energy Requirement.

6. APS estimates that the cost for full compliance with the REST Rules will total $48.2 million in 2008 and will increase to $95.7 million by 2012, totaling $347 million in the five-year period.

7. The Plan describes the technologies considered and the expected schedule of resource usage on a yearly basis for five years. The anticipated kilowatts ("kW") and kilowatt hours ("kWh") that will be applied to meet REST requirements are calculated.

8. In Exhibit 1 of Attachment A, the APS REST Program Summary of the APS application, APS outlines how it intends to meet its REST requirements. In 2008, APS expects to have retail electricity sales of 29,496,411 MegaWatt-hours ("MWH"). When the annual 2008 REST requirement of 1.75 percent of retail sales is applied, the result is a renewable MWH requirement of 516,187 MWH. Of this amount, 90 percent (464,568 MWH) will come from renewable generation and 10 percent (51,619 MWH) will come from distributed energy resources. APS projects that the renewable generation requirement will cost $5.9 million to achieve and the distributed energy requirement will cost $42.3 million to achieve. The total program budget for the APS REST program in 2008 is projected to be $48.2 million.

9. In Exhibit 1 of the APS filing, APS indicates that it anticipates 102,000 MWh of Green Power sales to customers in 2008, with gradual increases in those sales over the following

five years. However, APS states in a footnote that "Green Power sold to customers will not be counted toward REST compliance and the cost of those resources is not included in the Renewable Generation budget."

Renewable Generation

10. Currently, APS owns and operates approximately 6 MW of solar capacity. In addition, APS has entered into power purchase agreements ("PPAs") totaling 114 MW of renewable generation capacity. This totals 120 MW of generation capacity and is described in detail in Exhibit 3B of Attachment A in the APS application.

11. The expected annual MWH of generation from existing contracts and planned generation is shown in Exhibit 3A of Attachment A of the APS plan. The estimate for existing renewable generation is 454,162 MWH in 2008, which will cover 97.7 percent of the renewable generation target (464,568 MWH) that APS has set for 2008. So, an additional 10,407 MWH of renewable generation would be needed to be procured in 2008 to meet the renewable generation REST requirement.

Distributed Energy

12. In its Plan, APS has proposed an annual funding level that APS believes is necessary for compliance with the annual Distributed Renewable Energy Requirement of the REST Rules. The APS request is for a reset of its current EPS adjustor to cover only the 2008 estimate for the Distributed Renewable Energy Requirement. APS indicated that additional increases in the adjustor will be required to meet the future increases in the Distributed Renewable Energy Requirement.

13. APS participated in the meetings of the Uniform Credit Purchase Program ("UCPP") Working Group in 2006 and 2007. APS has included the UCPP procedures and incentives in its DEAP.

14. APS has developed a planning tool to estimate the Distributed Energy ("DE") program outcomes. The assumptions used with this planning tool are included in Exhibit 4A of Attachment A of the APS filing. The Distributed Energy Projected Program Outcomes are shown

. . .

in Exhibit 4B of Attachment A of the APS filing. The Distributed Energy Projected Program Outcomes by technology are in Exhibit 4C of Attachment A of the APS filing.

15. Incentives to encourage customers to install Distributed Energy Systems are generally of two types: Up-Front Incentives ("UFI") and Production-Based Incentives ("PBI"). The incentives are used differently depending upon the type of customer.

16. Incentives for residential customers are for a one-time payment based on the DE system's capacity and first-year estimated savings. For residential customers, this is a UFI.

17. For non-residential systems, projects with an incentive value of $75,000 or less will receive a one-time UFI incentive. Non-residential systems eligible for incentives greater than $75,000 will be offered a PBI incentive based on system energy output.

18. Projects that fall outside of the standard administrative, equipment, or incentive requirements for DEAP projects will be considered "Market Driven Projects." Customer Self-Directed Projects are for those customers who pay REST Tariff funds of at least $25,000 annually. The "APS Adjustment Schedule SDR, Self-Directed Renewable Resources" was submitted as part of this filing.

<u>Renewable Technology Commercialization and Integration</u>

19. APS requests a budget allocation to conduct various studies related to the commercialization and integration of renewable resources. The studies may be conducted solely by APS or in partnership with other organizations.

20. The following studies are currently funded by the EPS funding:

- <u>Arizona Renewable Resource Study</u> – Recently completed by Black and Veatech.
- <u>APS Integration Study</u> – Recently completed by APS.
- <u>Joint Utility Market Study</u> – Done together with SRP, TEP, and the Arizona Cooperative Utilities.
- <u>Concentrating Solar Power Project Studies</u> – Done in conjunction with the Joint Development Group.

21. To determine whether or not to fund new studies, APS will consider three areas:

. . .

- Renewable technologies and available resources
- Transmission and system integration impacts
- Distribution system impacts

Costs of Program Implementation

22. APS has estimated, in Exhibit 2 of its application, that the cost to comply with the REST Rules will range between $48 million in 2008 and $96 million in 2012, totaling $347 million over five years.

23. APS is requesting adjustor funding of $42 million for 2008. This amount, added to the $6 million already included in base rates, would total $48 million, which is the amount that APS believes it needs to meet the REST requirements.

The APS Distributed Energy Administration Plan

24. The REST Rules require that a portion of the annual renewable energy requirements must come from DE systems. In its plan, APS proposes to use the approach and technology requirements that were developed by the UCPP Working Group in 2006 and 2007. APS has indicated that, if the Commission adopts UCPP requirements that are different than those implemented in the DEAP plan, the APS plan may need to be amended.

25. The DEAP Plan, as submitted by APS in this filing, is intended by APS to meet the requirements of the REST Rules in A.A.C. R14-2-1810.B, which requires that "...each Affected Utility shall file a Uniform Credit Purchase Program for Commission review and approval."

26. The DEAP plan, as proposed, provides the details by which customers will obtain incentives; the requirements associated with the selection, installation, and operation of the DE systems; and the measurement of DE performance for compliance reporting and program evaluation. The intent is to ensure consistency and uniformity in the administration of the APS DE program. APS has indicated that this new program will require updating and revising the existing APS DE incentive program, known as the Solar Partners Incentive Program.

27. There are three project categories in the DEAP program: Standardized Projects, Market-Based projects and Customer Self-Directed projects.

. . .

28. The DEAP program includes installation and equipment specifications that were developed by the UCPP Working Group. Included are equipment qualifications and installation guidance.

29. DE systems must be permitted with and inspected by the local authority that has jurisdiction. APS will select a subset of DE systems for an APS DE program conformance inspection.

30. The DEAP plan provides a review of the reservation process for incentives, an extension and cancellation policy, and details of energy reporting program monitoring.

31. APS includes a request for a DE Review Panel for ongoing review and adjustments of certain Plan elements. APS asks that the DE Review Panel be given "authority to expeditiously adjust the Plan and program elements."

32. The DE Review Panel would be a five-member panel. The Panel will review program elements, vote on suggested changes, and suggest to APS modifications to Plan elements. Any changes would be promptly reported to the Commission. The Panel would include one representative from the ACC Staff, three representatives from the distributed energy industry, and one representative from APS. The industry and ACC Staff representative would be appointed by the ACC Utilities Division Director. Representatives would serve two-year terms. A unanimous vote on a subject would result in incorporation of the suggested change into the DEAP Plan. Modifications not receiving a unanimous vote could be considered in the following year's REST Implementation Plan.

33. As part of its REST Plan, APS includes in its budget over $15 million for Administration, Implementation, Marketing and Commercialization. This would include 48.3 full-time APS employees. The majority of that budget ($13.6 million) and the majority of the employees (40.8) would be used in the Distributed Program.

<u>Reset of APS Renewable Energy Adjustor</u>

34. In its August 30, 2007 amended filing, APS filed a request to reset a previously-authorized renewable energy adjustor mechanism. APS estimates that it will need the Adjustor to collect $42.2 million which, together with another $6 million in base rates, would be needed, in

APS' opinion, to meet the REST requirements. This would result in an Adjustor rate of $0.004629/kWh, with monthly caps of $1.85 for residential customers, $68.78 for commercial and industrial customers less than 3 MW, and $206.33 for commercial and industrial customers greater than 3 MW.

Adjustment Schedule SDR: Self-Directed Tariff

35. In its filing, APS included Adjustment Schedule SDR: Self-Directed Renewable Resources. This tariff explains the eligibility and procedures necessary for a customer to receive funding for self-directed projects, as allowed in A.A.C. R14-2-1809. The customer must notify APS by March 31 of the "payment year" of its intent to apply for self-directed funding. In the following year, the "funding year", APS would make available up to one-half of the system cost, limited by the customer's RES related payments in the payment year.

Other Issues

36. APS, in its filing, requests clarification that the REST Rules are the standard that applies to renewable energy issues for APS and that rulings that pertain to the former Environmental Portfolio Standard ("EPS") Rules are no longer applicable and binding on APS.

37. In particular, APS requests clarification that the REST Rules have superseded the EPS Rules and that the partial variance of the EPS Rule granted by the Commission in Decision No. 66565 has been superseded. In that Decision, APS was granted a partial waiver to allow a limited amount of renewable solar thermal energy that replaced natural gas usage to be eligible to meet the EPS requirement.

38. APS also requests clarification that the renewable reporting requirements in the REST Rules have replaced similar reporting requirements in other related dockets to include:

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Decision No. 58643 (June 1, 1994) Docket No. E-00000D-93-0052 Integrated Resource Planning	Database of renewable resources; three-year renewable resource action plans as part of IRP
Decision No. 59601 (April 24, 1996) Docket No. E-01345A-95-0491 APS Rate Reduction Agreement	Semi-annual Reports to Staff on DSM and Renewables
Decision No. 63354 (February 8, 2001) Docket No. E-01345A-01-0034 APS Application for Approval of Environmental Portfolio Surcharge EPS-1	APS must file annual report within 60 days of the end of the calendar year with details of surcharge funds collected and spent.
Decision No. 66565 (November 18, 2003) Docket No. E-01345A-03-0660 Variance to allow solar thermal to replace natural gas for the EPS	APS must file a report on all solar thermal installations made subject to the variance as part of EPS reporting requirements.

Comments by Stakeholders and Interested Parties

39. On August 13, 2007, comments were filed in the docket by Sunrise Energy Alternatives, LLC of Dewey, Arizona. The comments concern remote power systems for off-grid renewable systems and the APS requirements for metering of the systems. The commenter was requesting more information from APS on the types of meter(s) required.

40. On August 30, 2007, Jaspar Energy, LLC filed comments related to Solar Energy Enhanced Combustion Turbine ("SEECOT™") systems that may be installed in conjunction with combined cycle power plants. Jaspar Energy commented that, in the most recent APS RFP, APS excluded the use of APS' own assets. Jaspar Energy recommended that, in its final order related to the APS REST Implementation Plan, the Commission permit APS to include such solar energy systems at its own fossil fuel fired power plants, which would reduce the "air intake" temperatures of the gas turbines, thereby adding generating capacity, while reducing fuel consumption, as well as replacing the need to use inefficient gas "duct burners," thereby reducing the high cost of peaking power.

41. On September 18, 2007, Western Resource Advocates and Interwest Energy Alliance provided initial comments about the APS REST Implementation Plan. The comments addressed only the resources used to meet the non-distributed portion of APS' RES requirements over the period 2008 to 2012. Included was an analysis of the benefits of the non-distributed

renewable energy resources and the market conditions related to the APS resources. The comments recognized that "many non-distributed renewable resources are cost competitive with conventional generation." The comments also recommended that the Commission "Accept APS' plan for acquiring non-distributed resources."

42. On September 26, 2007, joint comments were filed by the "Solar Advocates," which include The Annan Group, the Arizona Solar Energy Industries Association, the Greater Tucson Coalition for Solar Energy, the Solar Alliance, and the Vote Solar Initiative. The primary concern expressed in the comments was that "the goals of the RES can be achieved for less cost than proposed by APS in their filing." The comments agreed that the "incentives budget proposed by APS appears reasonable and appropriate." The group believes that savings can be made in the overhead portion of the budget. They recommend that the 2008 overhead budget be limited to 10 percent of total costs. One alternative suggested was to collect the funds in base rates. The comments noted that "Marketing is the largest part of the non-incentive budget in APS' Plan, representing 15 percent of the total proposed DE budget in 2008". They questioned whether the cost of the studies proposed by APS should be funded exclusively by the RES program. The comments included examples of other states, including Colorado and California, where renewable programs are operated with overhead costs less than 10 percent, and in the case of Colorado, ranging from 3.8 percent to 6.1 percent in the years 2008-2016. In particular, the Solar Advocates claim that the 32 percent overhead costs proposed by APS for distributed energy are excessive.

43. On October 16, 2007, Commissioner Mundell filed a letter in the docket requesting that APS and the Solar Advocates work together to find a common solution.

44. On December 17, 2007, APS and the Solar Advocates filed a joint letter (the "Joint Proposal") in the docket. The letter included revised budget and funding mechanisms that "permits APS to better synchronize program funding with expected residential distributed energy ("DE") customer participation." The proposal includes a roll-over of uncommitted DE incentive funds from 2007 and a reduction in the Marketing and Outreach budget. The alternative proposal provides for full funding for the non-residential DE and Renewable Generation elements that are included in the APS Implementation Plan. The new element of the proposal is designed to better

synchronize with residential DE customer demand. This would adjust the budget and establish a two-step funding mechanism, beginning at the level of the sample tariff and increasing when certain triggers are met.

45. In the new Joint Proposal, the Commercialization and Integration ("C&I") budget remains as proposed by APS. Funding for Marketing and Outreach would be reduced by $1.5 million to $4.8 million in 2008.

46. Both parties agreed that missing the first year (2007) in the ramp-up of the RES requirements will put a strain on both the utility and industry in meeting the 2008 requirements. This will require an increase from around 500 installations per year to more than 7,000 annual installations to meet the RES requirements.

47. The Joint Proposal requests authorization from the Commission for funding of $43.7 million in two steps. Step 1 would set funding consistent with the RES Sample Tariff at an annualized level of $36.9 million. Step 2 would be an automatic increase to an annualized level of $43.7 million, contingent upon certain triggers being met. The triggers would be one of two events based on the pace of residential incentive requests:

1.) APS receives new 2008 residential incentive requests of more than $13 million before June 30, 2008 (or the mid-point of the remaining calendar year if ACC approval is received after January 1, 2008) or,

2.) APS receives new 2008 residential incentive requests of more than $17.5 million before August 31, 2008 (or the two-third point of the remaining calendar year if ACC approval is received after January 1, 2008).

48. If either of the triggers are met, the parties ask that the Commission authorize APS to automatically increase the charges and caps contained in the RES Adjustment Schedule with prior notice to the ACC, Staff, and interested stakeholders. The notice would be in the form of an informational filing 30 days prior to the increase that would include documentation of the residential incentive request level, the date of the increase, and the anticipated amount of collections for the remainder of the year.

49. On December 21, 2007, APS filed a letter and documents to support the Joint Proposal's alternative Implementation Plan, which was described in the joint December 17th letter.

Also in the filing were exhibits that were modified by the alternative Implementation Plan, to include:

1.) Exhibit 2: 2008 APS RES Summary as Proposed,

2.) Exhibit 4B: 2008 APS Distributed Energy Projected Program outcomes,

3.) Exhibit 4C: 2008 APS Distributed Energy Projected Program Outcomes by Technology,

4.) Amended (Step 1) Adjustment Schedule RES,

5.) Amended (Step 2) Adjustment Schedule RES, and

6.) Attachment C: APS/Solar Advocates Alternative Funding Collection Estimates.

50. Under the Joint Proposal's alternative Implementation Plan, the budget would change to:

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Exhibit 2: 2008 APS RES Budget Summary as Proposed ($MM)

	Amended APS Plan Filed August 30, 2007	APS/Solar Advocates Alternative Plan		
		Revised Total	Step 1 Proposed Funding	Step 2 Additional Funding[1]
Renewable Generation:				
Energy Purchase	$ 5.3	$ 5.3	$ 5.3	$ --
Administration	0.7	0.7	0.7	--
Implementation	0.4	0.4	0.4	--
Commercialization & Integration	0.5	0.5	0.5	--
Renewable Generation - Subtotal	**6.9**	**6.9**	**6.9**	--
Estimated Green Power Revenue	(1.0)	(1.0)	(1.0)	--
Renewable Generation – RES	**$ 5.9**	**$ 5.9**	**$ 5.9**	**$ --**
Distributed Energy:				
Incentives	$ 28.7	$ 28.7	$ 22.7	$ 6.0
Customer Self-Directed	--	--	--	--
Administration	1.6	1.6	1.4	0.2
Implementation	5.2	5.2	4.6	0.6
Marketing & Outreach	6.3	4.8	4.8	--
Commercialization & Integration	0.5	0.5	0.5	--
Distributed Energy – Subtotal	**$ 42.3**	**$ 40.8**	**$ 34.0**	**$ 6.8**
NET TOTAL	**$ 48.2**	**$ 46.7**	**$ 39.9**	**$ 6.8**
2007 Estimated Incentive Roll-over[2]		(3.0)	(3.0)	
TOTAL	**$ 48.2**	**$43.7**	**$ 36.9**	**$ 6.8**

51. In December 2007, APS estimated that the 2007 Estimated Incentive Roll-Over would be approximately $3 million. The actual roll-over at the end of 2007 was $3.5 million.

52. On February 22, 2008, SOLID Energy, Inc. ("SOLID") filed comments on the APS REST Plan. SOLID supports APS' request for clarification that the Partial Variance approved for APS in Decision No. 66565 is superseded by the REST Rules. SOLID expressed concern that

[1] Represents the annualized collection resulting from affecting Step 2 funding. Actual collection resulting from Step 2 will vary based on the month the increase is put in place.
[2] The Estimated Incentive Roll-over represents the anticipated unspent incentive dollars from 2007.

APS might wish to own and install systems under the DE portion of the RES. SOLID opposes the voting mechanism in the proposed DE Review Panel. SOLID disagrees with the Credit Purchase Agreement, Contractor Qualification, Participant Delinquency, Allocation Method, Incentive Cap for Dealers and Manufacturers, Default Procedures, and Market-Based Projects sections of the Plan. SOLID requests a second phase of UCPP Working Group meetings.

Staff Response to Comments by Stakeholders and Interested Parties

53. Staff agrees with Sunrise Energy Alternatives, LLC that APS should clarify the details of metering for renewable systems, particularly for remote, stand-alone systems.

54. Staff agrees with Jaspar Energy, LLC that APS should be allowed to install "solar assist" systems in conjunction with combined cycle power plants owned by APS. In particular, solar systems that reduce the need to run inefficient gas "duct burners" should be encouraged as a way to reduce the high cost of peaking power.

55. Staff agrees with Western Resource Advocates and Interwest Energy Alliance that the APS plan for acquiring non-distributed resources should be approved by the Commission.

56. Staff agrees with the Solar Advocates that APS' proposed overhead costs, as a percentage of total program costs, are extremely high, particularly for the Distributed Energy effort.

57. Staff agrees with SOLID on the clarification that the Partial Waiver in Decision No. 66565 is superseded by the REST Rules. Staff also agrees with SOLID that the DE Review Panel idea has some flaws. Staff disagrees with SOLID that its recommended changes to the APS REST Implementation Plan need to be made in 2008. Staff recommends that APS review SOLID's comments and consider appropriate changes for the filing of the APS 2009 REST Implementation Plan.

Staff Response to the Joint Proposal from APS and the Solar Advocates

58. Staff has reviewed the Joint Proposal provided by APS and the Solar Advocates. Staff notes that APS was unable to find enough customers to utilize $3.5 million in 2007 EPS incentive funding. This fact clearly indicates that APS will find it nearly impossible to expend

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the $22 - $28.7 million in incentives for the REST Distributed Resources that are proposed in the Joint Proposal.

59. The Joint Proposal is based upon the premise that the Commission would approve a two-step process that would automatically reset the APS Renewable Energy Adjustor in Step 2.

60. Staff is concerned that such an automatic reset may raise legal issues. Staff is further concerned that such a step may not be a sound policy for the Commission to institute.

61. Finally, Staff notes that the Commission will take action on the APS 2008 REST Plan at a point where the first quarter of the plan year is already completed. The next REST plan for APS must be filed by July 1, 2008. This 2009 REST Plan filing will offer an opportunity for APS to request and receive modifications to the APS Renewable Energy Adjustor in the Fall of 2008 as the Commission considers approval of the 2009 REST Plan.

62. For these reasons, Staff recommends that the Commission reject the Joint Proposal of APS and the Solar Advocates.

Staff Analysis of the APS Implementation Plan

63. Staff has analyzed the APS REST Implementation Plan, including its Distributed Energy Implementation Plan, and its proposed tariffs.

<u>The REST Implementation Plan</u>

64. Staff finds that the Implementation Plan is a logical, well thought-out approach for APS to meet its REST obligations. Although Staff may not agree with all the assumptions used by APS in preparing its plan, Staff believes that the approach proposed by APS is consistent with the steps that Staff believes are necessary to expand the use of renewables by APS and its customers.

65. Staff disagrees with APS that Green Power Sales under Rate Schedules GPS-1 and GPS-2 should not be counted toward the REST requirements. The Environmental Portfolio Standard encouraged such green pricing efforts by offering extra credits for such programs. Staff recommends that the Commission direct APS to count Green Power Sales toward REST requirements.

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The Distributed Energy Administration Plan

66. Staff agrees with most of the details of the DEAP plan. Staff believes that the procedures, policies, program requirements, installation and equipment specification, and incentive types and incentive levels are reasonable and should contribute to a fair and orderly process to encourage distributed energy systems at customer premises.

67. Staff disagrees, however, with one provision in Section 4.2 of the DEAP plan. It states: "A DE system purchased more than 180 days before the date that APS receives the reservation request will not be considered 'new' under this Plan." Staff believes that this requirement is logical, primarily for the years 2009 and after.

68. Staff notes that, in January 2004, the Commission began its process to expand the Environmental Portfolio Standard in size and scope, and to include a wide variety of new renewable technologies that were never before eligible for the Portfolio. Many customers relied on the promise of future incentives when they purchased and installed renewable energy systems. Staff believes that, for calendar year 2008 only, APS should allow an exception to its procedure as follows:

> For any eligible DE system purchased and installed between January 1, 2004, and July 1, 2008, and for which a reservation request is submitted to APS no later than December 31, 2008, such system shall be considered "new" under the APS DEAP program. Should DE funding run short in 2008, any of these "grandfathered" systems shall be paid incentives in 2009, once 2009 funding levels have been approved by the Commission. Upon payment by APS of the appropriate incentive, APS shall accrue all Renewable Energy Credits created since the system was installed. These Renewable Energy Credits may be used by APS for the 2008 REST requirements or for any later year's requirements. APS may choose whether to pay for the Renewable Energy Credits from these "grandfathered" systems with a one-time up-front incentive or as a yearly production-based incentive.

69. Staff has reviewed the APS proposal to establish a "DE Review Panel," which, if approved as proposed, would have broad authority "to expeditiously adjust the Plan and program elements." Staff notes that this concept is similar to one that was discussed in the Uniform Credit Purchase Program meetings.

70. Staff believes that, once all outstanding 2008 REST Plans and Tariffs are addressed by the Commission, work on the Uniform Credit Purchase Program will recommence. Staff

believes that the issue of review panels such as those proposed by the UCPP Working Group and by APS are more appropriately addressed in the UCPP process. Therefore, at this time, Staff recommends that APS' request to establish a DE Review Panel be denied. In the future, if no such panel is established under the UCPP effort, APS may elect to recommend such a panel in future REST Implementation Plans.

Fair Value Determination of REST Tariff

71. Staff has analyzed APS' application in terms of whether there are fair value implications. In Decision No. 69663, issued on June 28, 2007, the Commission determined the Fair Value of APS' rate base to be $6,057,554,000. The proposed REST Tariff would have no impact on the Company's revenue, fair value rate base or rate of return. Additionally, because plant developed pursuant to the REST programs is not added to rate base, there will be no corresponding effect on APS' ultimate revenue or rate of return. APS has assigned specific numerical codes in its accounting system for the plant, revenue and expenses associated with REST implementation to ensure that these items are properly accounted for and in order to accurately prepare the required annual report for this program.

Staff's Development of Two Options for Commission Consideration

72. Staff notes that, by the time the Commission is able to take action on the APS REST Plan, three months of 2008 will have elapsed. According to the REST Rules, APS would only be responsible to meet the portion of the annual REST Requirement from the date of funding approval. Therefore, Staff calculates that, at most, the Commission should only consider approving a funding level for 2008 that is 75 percent of the total requested by APS in its filing, since one quarter will have already passed prior to approval.

73. Staff's review of the APS request shows that an extremely large percentage (over 31 percent) of the total funds requested will be used by APS for Administration, Implementation, Marketing, Outreach, Commercialization and Integration. Staff agrees with some of the stakeholders who have argued that this percentage is extremely high. Staff recommends that funding for Administration, Implementation, Marketing, Outreach, Commercialization and Integration be reduced under either option proposed by Staff.

74. Staff has proposed two possible options for the Commission to consider. The first option, Option A, would pro-rate the funding and REST requirements for 2008, based on the Commission's approval date of the APS REST Implementation Plan Filing and reset of the APS Renewable Energy Adjustor, as required in A.A.C. R14-2-1804.B. Option A would address the fact that the 2008 budget and plan will be approved after the year has commenced.

75. Option B offers the Commission a completely different approach, relaxing the allocation of the Distributed Renewable Energy Requirement in 2008, but creating a six-year ramp-up to the desired residential/non-residential 50 percent split in 2013.

Staff Proposed Option A:

76. From its review of the APS proposed budget, Staff finds that the Administration, Implementation, Marketing, Outreach, Commercialization and Integration budget allocations are extremely high compared to actual funds used to encourage distributed projects or to purchase renewable kWh from third parties. Although Staff understands that start-up funding in the first year of a program may be, of necessity, much higher than normal, Staff believes that the totals requested for Administration, Implementation, Marketing, Outreach, Commercialization and Integration are excessive.

77. For the 2008 Implementation Plan, Staff recommends a reduction of $4.2 million of those non-project costs. That would reduce the APS budget from $48.2 million to $44 million. Next, since one quarter of year 2008 is already completed and the APS Annual Renewable Energy Requirement will be only 75 percent of the Annual Requirement used to establish the APS REST Implementation Plan, Staff recommends that only 75 percent of the remaining $44 million be authorized for the APS Implementation Plan. That would be a total of $33 million.

78. Staff proposes, in Option A, that APS use the following sources of funds for the 2008 budget of $33 million:

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EPS Funds rolled over from 2007	$ 3,500,000
Renewable Funding in Base Rates	6,000,000
Estimated Green Power Revenue	1,000,000
Reset of Adjustor to Collect $30 million annually (or $22.5 million in 9 months April – December 2008)	22,500,000
	$33,000,000

79. APS has not formally proposed a $30 million reset for the Adjustor. Staff inquired of APS in various data requests how it would fund a REST program at various levels of funding to include: $27 million, $30 million, $33 million, $36 million and $42.2 million (the original APS request).

80. In order to collect the REST funding at the $30 million per year rate, the APS Adjustor rate would need to be $0.003288 per kWh, with monthly caps of $1.32 for residential customers, $48.84 for commercial and industrial customers less than 3 MW, and $146.53 for customers greater than 3 MW.

81. APS estimates that the average monthly REST bill for residential customers would be $1.19 and that 78.9 percent of residential customers would reach the $1.32 monthly cap. The average monthly REST bill for small general service customers would be $4.47, and only 9.2 percent of the small general service customers would reach the $48.84 monthly cap.

Staff's Proposed Option B: The Modified Distributed Renewable Energy Requirement

82. When the Commission developed and adopted the Distributed Renewable Energy Requirement, it recognized that a goal of 30 percent of the portfolio dedicated exclusively to distributed renewable energy systems was an ideal way to broaden the development of renewable technologies in Arizona. The Commission also realized that it was prudent to achieve that goal slowly by starting with 5 percent as a distributed requirement and slowly ramping up the requirement to the desired 30 percent over a six-year period.

83. At the same time, the Commission determined that a reasonable mixture of system types would require one-half of the Distributed Renewable Energy Requirement from residential

applications and one-half of the requirement from non-residential, non-utility applications. The REST Rules also allow for a Wholesale Distributed Generation Component that can meet up to 10 percent of the annual DRE requirement from non-utility owned generators that sell electricity at wholesale to Affected Utilities.

84. Unfortunately, at the time the REST Rules were being developed, no consideration was given to the possibility of ramping-up the residential and non-residential requirements slowly over a number of years. Similarly, no consideration was given to increasing the Wholesale Distributed Generation Component to a percentage greater than 10 percent.

The Residential Incentive Challenge

85. The biggest problem facing the utilities in the implementation of their REST Plans is the extremely high cost of providing incentives to residential customers that are substantial enough to encourage thousands of customers to opt for renewable energy systems. To date, the best way to encourage residential customers has been to offer an up-front incentive which covers up to one-half of the system's installed cost.

86. Although this UFI has been successful, it is a very costly way to provide large numbers of residential installations. The effect is to pay for 30 years of renewable kWh energy savings in the first year. This means that the first year's cost to the utilities (up to half the system installed cost) is extremely large, followed by 29 or more years of no cost to the utility.

87. It is this residential incentive which dominates the APS budget in its proposed implementation plan. APS proposes $26.055 million in incentives to reach the residential target of 5 percent of the annual REST requirement. Although APS has not broken down its Administration, Implementation, Marketing & Outreach, and Commercialization and Integration costs by residential and non-residential customers, Staff estimates that from 60-75 percent of those costs will be allocated to meeting the residential requirement. So, for an APS-proposed total of $13.6 million for Administration, Implementation, Marketing & Outreach, and Commercialization and Integration, approximately $8-10 million will be for residential applications. Combined with the proposed $26.055 million for residential incentives, the impact of residential system programs will consume from $34-36 million of the proposed 2008 APS budget of $48.2 million.

Staff's Proposed Solution to the Residential Incentive Challenge

88. One reason that the residential incentive problem is so large is that the REST Rules require that 50 percent of the Distributed Renewable Energy Requirement set forth in A.A.C. R14-2-1805 must come from residential customers. The rule, however, does not provide a "ramp up" period for this requirement.

89. Staff had recommended that both the overall Annual Renewable Energy Requirement and the Distributed Renewable Energy Requirement be ramped up slowly in order to allow the utilities and the renewable energy industry to gradually expand their efforts to meet the annual increases in both requirements. A similar gradual ramp-up for the residential and non-residential set-asides in the Distributed Renewable Energy Requirement was not considered.

90. The dilemma is compounded by the fact that the REST Rulemaking process took much longer to complete than originally anticipated. In January 2004, when the REST process started, it was anticipated that the REST Rules would be adopted by late 2005 or early 2006. That is why the first REST Annual Renewable Energy Requirement was set for 2006.

91. Unfortunately, no REST Plans were implemented in either 2006 or 2007, but the annual REST requirements continued to grow each year. The effect of this delay is that, in 2008, the utilities must play "catch-up" for the missed 2006 and 2007 calendar year requirements, making it even more difficult for them to bridge the large gap from the older EPS requirements to the newer, and much larger, REST requirements.

92. During the REST Rules process, it became clear that, in the future, the Commission may need to "tweak" or adjust the REST process as conditions change. The Implementation Plan review process provides an opportunity for such adjustments.

93. Staff recommends that no changes be made to the overall Annual Distributed Renewable Energy Requirement. The ramp-up, as defined in the Rules, would continue as specified.

94. Staff believes that, if the Commission were to gradually increase the residential and non-residential requirements to the desired 50 percent split, and allow, in the next five years, a larger percentage for the Wholesale Distributed Generation Component, the need for large funding

increases in the early years of the REST Rules would be greatly reduced. A gradual ramp-up would allow customer markets to grow at a reasonable rate and allow the renewable industry to expand gradually to meet the slower growth.

95. Staff recommends that the Commission approve for APS a six-year ramp-up of the allocation of the annual Distributed Renewable Energy Requirement. In 2008, APS would be required to provide a minimum of 25 percent of the requirement from residential customers and 25 percent of the requirement from non-residential customers. In addition, Staff recommends that the allocation for kWh from the Wholesale Distributed Generation Component, authorized by A.A.C. R14-2-1805.E, be allowed to provide up to 50 percent of the requirement in the first two ramp-up years. Staff's proposed ramp-up recommendation is:

Staff's Proposal for a Modified Distributed Renewable Energy Requirement

Current DR Requirement		**Allocation of the DRE Requirement**		
Year	D.R. %	Residential (Customer-Sited)	Non-Residential (Customer Sited)	Wholesale Distributed Generation Component*
2008	10%	Minimum 25%	Minimum 25%	Up to 50%
2009	15%	Minimum 25%	Minimum 25%	Up to 50%
2010	20%	Minimum 30%	Minimum 30%	Up to 40%
2011	25%	Minimum 35%	Minimum 35%	Up to 30%
2012	30%	Minimum 40%	Minimum 40%	Up to 20%
2013 and after	30%	50%	50%	Up to 10%

*Note: The Wholesale Distributed Generation component counts as part of the Non-Residential component only.

96. If the Commission accepts the premise of Staff's Proposed Option B, that a gradual ramp-up of the allocation of the Distributed Renewable Energy Requirement is in the best interests of all parties, there can be a significant reduction in the funding required to meet the REST Rules in the early years.

97. For instance, if the residential allocation for 2008 is 25 percent rather than 50 percent of the Distributed requirement, APS would only need $13 million for residential incentives rather than its proposed $26.055 million. Similarly, since the Administration, Implementation, Marketing, Outreach, and Commercialization and Integration costs are primarily driven by

numbers of installed distributed systems, the cost of these proposed programs should also be cut in half or more, from APS' proposed $13,555,150 for the distributed systems to less than $5,000,000.

98. Staff has reviewed the APS REST Plan and believes that, as adjusted in Staff's Proposed Option B, APS should be able to meet the REST Requirements for 2008, for a cost of $30,750,000. This would include an Administration, Implementation, Marketing, Outreach, and Commercialization and Integration budget of no more than $5.9 million, which is less than 20 percent of the total APS funding.

99. In order to collect the REST funding at the $27 million per year rate, the APS Adjustor rate would need to be $0.002962 per kWh, with monthly caps of $1.18 for residential customers, $44.01 for commercial and industrial customers less than 3 MW, and $132.04 for customers greater than 3 MW.

100. APS estimates that the average monthly REST bill for residential customers would be $1.07 and that 78.9 percent of residential customers would reach the $1.18 monthly cap. The average monthly REST bill for small general service customers would be $4.03, and only 9.2 percent of the small general service customers would reach the $44.01 monthly cap.

101. Staff proposes, in Option B, that APS use the following sources of funds for the 2008 budget of $30.75 million:

EPS Funds rolled over from 2007	$ 3,500,000
Renewable Funding in Base Rates	6,000,000
Estimated Green Power Revenue	1,000,000
Reset of Adjustor to Collect $27 million annually (or $20.25 million in 9 months April – December 2008)	20,250,000
	$30,750,000

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Comparison of APS Proposed Budget to staff Option B Budget

APS REST Program Elements	APS Filing Proposed Funding	Option B Staff Proposed Funding
Incentives (D.E.)		
Residential (UFI)	$26,055,000	$13,000,000
Non-Residential		
(UFI)	$ 661,000	$ 1,550,000
(PBI)	$ 979,000	$ 3,000,000
Existing (PBI)	$ 1,000,000	$ 1,000,000
Wholesale Component	--	$ 1,000,000
Subtotal	$28,695,000	$19,550,000
Renewable Generation kWh Purchase	$ 5,300,000	$ 5,300,000
Administration, Implementation, Marketing, Outreach, Commercialization and Integration	$15,152,710	$ 5,900,000
Total	$49,147,771	$30,750,000

102. Staff believes that Option B is a logical first-year step toward meeting the REST requirements. The gradual ramp-up of the allocation of the Distributed Renewable Energy Requirement will allow the renewable industry a reasonable time frame in which to expand the industry infrastructure required to provide the larger number of systems needed to meet the desired 50 percent residential set-aside.

Staff Analysis of Other Issues

103. Staff agrees with APS that the Order in this docket should clearly state that the REST Rules are the appropriate standard that applies to renewable energy issues for APS and that rulings pertaining to the former Environmental Portfolio Standard Rules are no longer binding on APS.

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104. Staff also agrees that the REST Rules have superseded the EPS rules and that the partial variance granted by the Commission in Decision No. 66565 has been superseded.

105. Staff further agrees that renewable reporting requirements in the REST Rules have replaced similar reporting requirements in Decision Nos. 58643, 59601, 63354, and 66565.

Synopsis of Filing and Staff Recommendations

106. Staff has prepared a synopsis of the APS filing that compares it to Staff Option A and Staff Option B. Staff has recommended that the Commission approve Staff Option B as the best available alternative.

	APS Filing	Staff Option A	Staff Option B
Proposed Budget	$48.20 million	$33.00 million	$30.75 million
Annual Adjustor Target	$42.2 million	$30.00 million	$27.00 million
Adjustor	$0.004629 per kWh	$0.003288 per kWh	$0.002962 per kWh
Residential Cap	$1.85	$1.32	$1.18
Small Comm. Cap	$68.78	$48.84	$44.01
Large Customer Cap	$206.33	$146.53	$132.01

107. Staff has recommended that the Commission order APS to modify its Distributed Energy Administration Plan, as recommended in the Staff Report, to allow eligible systems installed as early as January 1, 2004, to be defined as "new" systems for funding.

108. Staff has recommended that the Commission deny APS' request to establish a "DE Review Panel" as proposed in the Distributed Energy Administration Plan.

109. Staff has recommended that the Commission order APS to count Green Power Sales under Rate Schedules GPS-1 and GPS-2 toward meeting the REST requirements.

110. Staff has recommended that the Commission waive the 50 percent allocation of the Distributed Renewable Energy Requirement in R14-2-1805.D and the 10 percent limit on the Wholesale Distributed Generation Component in R14-2-1805.E for APS, and replace the requirements with Staff's proposed modified Distributed Renewable Energy Requirement, as described herein.

111. Staff has recommended that the 2008 APS REST Implementation Plan, as modified by Staff's recommendations, be approved.

112. Staff has recommended that the 2008 annual budget for the APS REST Implementation Plan be set at $30,750,000.

113. Staff has recommended that the APS Renewable Energy Adjustor be reset to a rate of $0.002962 per kWh, with monthly caps of $1.18 for residential customers, $44.01 for commercial and industrial customers less than 3 MW, and $132.04 for customers greater than 3 MW.

114. Staff has recommended that the Commission provide clarification in the Order that the REST Rules have superseded the EPS rules for APS and that the partial variance to the EPS Rules granted by the Commission in Decision No. 66565 has been superseded by the REST Rules.

115. Staff has recommended that the Commission order that the renewable reporting requirements in the REST Rules have replaced similar reporting requirements in Decision Nos. 58643, 59601, 63354, and 66565.

116. Staff has recommended Commission approval of Adjustment Schedule SDR: Self-Directed Renewable Resources.

CONCLUSIONS OF LAW

1. APS is a public service corporation within the meaning of Article XV, Section 2 of the Arizona Constitution.

2. The Commission has jurisdiction over APS and over the subject matter of the Application.

3. The Commission, having reviewed the application and Staff's Memorandum dated February 29, 2008, concludes that it is in the public interest to approve the APS REST Implementation Plan as modified by Staff's recommendations, approve the APS Adjustment Schedule RES as modified by Staff's recommendations, and approve APS Adjustment Schedule SDR: Self-Directed Renewable Resources.

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. . .

ORDER

IT IS THEREFORE ORDERED that the requirements in R14-2-1805.D and E are waived for Arizona Public Service Company and replaced by Staff's proposed Modified Distributed Renewable Energy Requirement, as described herein.

IT IS FURTHER ORDERED that the Arizona Public Service Company 2008 REST Implementation Plan, as modified by Staff's recommendations, is approved.

IT IS FURTHER ORDERED that the 2008 annual budget for the Arizona Public Service Company REST Implementation Plan shall be set at $30,750,000.

IT IS FURTHER ORDERED that the Arizona Public Service Company Renewable Energy Adjustor be reset to a rate of $0.002962 per kWh, with monthly caps of $1.18 for residential customers, $44.01 for non-residential customers less than 3 MW, and $132.04 for non-residential customers equal or greater than 3 MW.

IT IS FURTHER ORDERED that the Arizona Public Service Company Adjustment Schedule SDR: Self-Directed Renewable Resources is hereby approved.

IT IS FURTHER ORDERED that Arizona Public Service Company shall modify its DEAP Plan to include systems installed after January 1, 2004 as "new" for purposes of funding in the 2008 Distributed Program.

IT IS FURTHER ORDERED that Arizona Public Service Company's request to establish a DE Review Panel is denied.

IT IS FURTHER ORDERED that Arizona Public Service Company shall count Green Power Sales toward meeting REST requirements.

IT IS FURTHER ORDERED that the Arizona Public Service Company 2008 REST Implementation Plan shall remain in effect until further order of the Commission.

IT IS FURTHER ORDERED that for Arizona Public Service Company the Renewable Energy Standard Rules (A.A.C. R14-2-1801 through -1806) supersede the Environmental Portfolio Standard Rules (A.A.C. R14-2-1618) and any other reporting requirements related to renewable energy resources.

. . .

IT IS FURTHER ORDERED that, since the REST Rules supersede the EPS Rules, the partial variance granted to Arizona Public Service Company by the Commission in Decision No. 66565 has been superseded and replaced by the REST Rules.

IT IS FURTHER ORDERED that all monies collected by Arizona Public Service Company under the EPS Adjustor mechanism for the current EPS program shall be transferred to the REST Program.

IT IS FURTHER ORDERED that APS file with Docket Control, as a compliance matter in this docket, the tariff schedules as approved herein within 15 days of the effective date of this decision.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN COMMISSIONER

COMMISSIONER COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this _______day of ____________________ , 2007.

BRIAN C. McNEIL
Executive Director

DISSENT: ______________________________

DISSENT: ______________________________

EGJ:RTW:lhm\JFW

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